

**FORMATION OF MATERIAL CULTURE IN THE BHARATHAPUZHA
BASIN DURING THE PRE-HISTORIC AND EARLY HISTORIC
PERIOD – A STUDY OF MEGALITHIC BURIALS**

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DECLARATION

I, **SUJATHA. K.S.**, hereby declare that the thesis '**FORMATION OF MATERIAL CULTURE IN THE BHARATHAPUZHA BASIN DURING THE PRE-HISTORIC AND EARLY HISTORIC PERIOD – A STUDY OF MEGALITHIC BURIALS**' is a bonafide record of research work done by me and that it has not previously formed the basis for the award of any other degrees.

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It is also certified that both the adjudicators have not suggested any correction/modification in the Thesis and the contents of hardcopy and softcopy are same.

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ABBREVIATIONS

IHC	:	Indian History Congress
SIHC	:	South Indian History Congress
AN	:	Akananuru
PN	:	Purananuru
AI	:	Ancient India
MAE	:	Man and Environment
MI	:	Man in India
WA	:	World Archaeology
QJMS	:	Quarterly Journal of Mythic Society
SAAC	:	South Asian Archaeological Congress
ARCHA	:	Archaeological Review from Cambridge History and Archaeology
BDCRI	:	Bulletin of Deccan College of Research Institute
BIA	:	Bulletin of the Institute of Archaeology

SUJATHA. K.S. “FORMATION OF MATERIAL CULTURE IN THE BHARATHAPUZHA BASIN DURING THE PRE-HISTORIC AND EARLY HISTORIC PERIOD – A STUDY OF MEGALITHIC BURIALS”. THESIS. DEPARTMENT OF HISTORY, UNIVERSITY OF CALICUT, 2018.

Chapter 1

INTRODUCTION

From the very early time onwards men had great fear and respect for nature and the spirits of the dead. It can be understood from the monuments of Rock-cut caves of Kerala and the huge pyramids of Egypt. Even today we practice innumerable rituals associated with the death of human beings. These monuments could be the symbolic representation of fear of death. The practice of different kinds of funerary monuments built by human beings was possible as a symbolic reflection of man's fear towards the phenomenon called 'death'. In that sense, the megalithic monuments of pre or early historic period (roughly up to 3rd century CE) were clearly represented in the cultural discourses of human beings at that time.

When trying to trace the pre or early historic past of any society, the historians use archaeological sources for more authentic understanding of the problem. Such an effort has been applied in this study too. This study tries to understand the material culture of early historic period in the State of Kerala. The area of study has been limited to the Bharathapuzha River basin that forms part of the Palakkad, Trichur and Malappuram districts for convenience. The material culture of that period can be understood only through the artifacts of that period. In that sense here used the available sources of that period for a possible understanding of the problem.

The material cultural studies are very few in Kerala and some limited efforts appeared in some other parts of India.¹ Here, the historical perspective is

¹ Allchin, Neolithic cattle keepers of South India Cambridge University Press, (1963), Shereen Ratnakar, Makers and Shapers: Early Indian technology in the home, village and urban workshop, (2007), Banerjee, Iron age in India, P. Rajendran, Pre-historic Kerala, (2003), Rajan Gurukkal & Raghava Warrior, Cultural History of Kerala (1999), R.S. Sharma, Material culture and social formation in Ancient India, Macmillan India Limited, Delhi,(1983). These are certain works found to be dealing with these problems in a different ways.

applied only to understand the material culture of that period. The material culture studies of early historic period are possible only through the understandings of the grave goods of those burial monuments. The grave goods of megalithic monuments mainly include varieties of pottery, iron tools and weapons, rarely the artifacts made out of the metals like Copper and Bronze, beads of precious and semi-precious stones etc. The grave goods clearly indicate the possibilities for the existence of different kind of technologies of that time. In one sense, technology reflects the perceptions and effort of human beings and it needs skilled people for its purposes. So in a sense, the typology of grave goods and the technology behind this practice was the platform of this material cultural study in pre or early historic periods. For the sake of convenience, certain comparative studies may be conducted with other parts of world especially South India. The term 'Material culture' simply meant the objects which represents the culture of a place or time through the object which they had used and the material context in which the objects are used. On considering the opinion of E.P.Thomson, it is found that the materials of each period represent their way of existence and in one way those materials represent their means of struggles which they had lead for their survival.² With the development of Cognitive trends in Archaeology, the people like Ian Hodder, Michael Shanks etc used this concept for knowing a society.

The material cultural study of Kerala particularly in this early historic period depends on the sources of grave goods for understanding the cultural life of the people, mainly due to the absence of habitation sites at that time period. It has been observed that the wide use of iron didn't make a drastic change in the society of Kerala and rest of South India. The single evidence for an organized

² E.P.Thomson, *Customs in Common studies in Traditional Popular Culture*, New York, The New Press, 1993.

development relating with iron was not to be traced from their social life.³ Here for this study we select the geographical area included the river basin of Bharathapuzha only due to the archaeological importance of this area. In Kerala, only a few megalithic sites were found to be excavated and most of them were located near to this river. For example, the excavated sites like Pazhayannur and Machad, lying as close to the basin of this river and the reports of these sites revealed the importance of these areas. Mainly the grave goods and monuments showed technological resemblances with other South Indian sites and the iron received from here have showed the high purity (99%) in its scientific experiments.⁴ Another excavated site like Thiruvilwamala was notable for the availability of Bronze vessel that was very rare in megalithic grave goods of South India. The surface explorations in these areas conducted by State Department of Archaeology also revealed the significances of this area. From these observations I selected the Gayathripuzha basin one of the tributaries of Bharathappuzha flowing through Palakkad District which is significant for an enquiry. For this kind of material cultural studies, we used information from other branches of knowledge like, literature, geography, archaeology, ethno historical studies etc for developing a historical understanding of the problem.

The research problem of the work is not to concentrate on tracing the possibilities for developing a settlement life in the surroundings of this river, and such kinds of archaeological remains have not been discovered as yet. But the technologies which have been revealed through the study of grave goods and

³ Rajan Gurukkal, "Aspects of Early Iron Age Economy: Problems of Agrarian Expansion in Tamilakam" in Brajudulal Chattopadhyaya (ed.), *Essays in ancient Indian economic Histoy*, New Delhi, Primus Books, (1987) 2014, pp.41-50.

⁴ R.N.Mehta &K.M.George, *Megalithic of Machad and Pazhayannur Talappilli taluk, Thrissur District, Vadodara, M.S. University of Baroda*, 1978,P. 20-34.

surface remains may indicate the possibilities of certain kinds of human involvement in these areas. The study is based on understanding the movement of human beings through the distribution of these megalithic monuments. The antecedents of the Kerala megaliths have not been researched. Some insights have been obtained with the efforts of scholars like Dr. P. Rajendran, which revealed the remains of Paleolithic and Mesolithic tools from here. These remains indicate the existence of human intervention from prehistoric times. In the absence of adequate archaeological evidence, the specific features of the transition from prehistoric to early historic cannot be traced in the Kerala context. The extent of human involvement in this area and the possibilities of a material cultural formation in Kerala have to be studied on the basis of the grave goods from the existing archaeological sites. In other words, the death rituals which existed at that period are not going to be discussed, and we concentrate our discussion on the importance of grave goods and typology to understand the living pattern then. Although we are discussing burials, this work is not to concentrate on the burial of any particular community; the available archaeological evidence will be examined to understand the material culture of the early historic period.

MEGALITHIC MONUMENTS

In Kerala the ‘megalithism’ or ‘burial practice’ was related with the ‘Iron age’ culture. That was the same in the case of other parts of India especially South India. The word ‘megalith’ originated from the Greek words ‘megas’(Great) and ‘lithos’ (stone). This generally meant the monuments made from large stones. But some of the scholars questioned the use of the term ‘megaliths’ for these burial

monuments. Some of the monuments with burial remains were found not to be attached with any huge monuments (Urn burials). Some huge stone monuments like Dolmens, Menhirs etc have sometimes been found as not attached with the burial remains. Leshnik used the term 'Pandookal complex' for these burial monuments other than megalithic monuments.⁵ 'Sepulchral' (burial) and 'non-sepulchral' (non-burial or memorial) are another categorization of megalithic burials.⁶ However, megalithic monuments are our major source of evidence for understanding the material culture of the early historic Kerala, and we use the term megalith as a composite category to describe different varieties of burial monuments in spite of the distinctions among the burial sites themselves. There are many such sites in Kerala and S.B.Darsana is of the opinion that the number of sites is around 850. But the problem of these sites is that most of them are disturbed and reports regarding the excavated sites are unavailable. The preservation of grave goods and other artifacts are poor, and this restricts people who work in this field from getting enough information.

Geographical and physical importance of the area of study

The area of this study concentrates on the banks of Bharathapuzha that flows from Western Ghats. Megalithic clusters are seen distributed here and there on the basin of the River and its tributaries along with its nearby forest areas. Even though the river basin was notable with the large distribution of monuments, the absence of discovered habitation sites exists as a large problem like any other parts of Kerala. But the types of monuments found here may

⁵ Lawrence Leshnik, *South Indian Megalithic burials The Pandookal complex*, London, Franz Steiner Verlag GmbH Wiesbaden, 1974, p. 2.

⁶ U.S.Moorthi, *Megalithic culture of south India Socio-economic perspectives*, Varanasi, Ganga Kaveri -publishing House, 1994, pp.1-7.

collectively indicate the possible involvement of people from ancient or early historic period onwards in the basin. In another sense, the collective nature of burials in these areas may support the possibilities for habitation sites in the area.

Kerala is a state in South India generally considered as a geographically isolated area. But through the ages, it becomes an integral part of the Indian sub-continent. The mountains and hills of Kerala have played their part in its history. The area called 'Palakkad' has a major role in the making of the history of Kerala, due to the existence of the largest pass of Western Ghats in Kerala.

It is not possible to understand the history of ancient Kerala without the background of Western Ghats. The Western Ghats spreads from Gujarat coast to Kanyakumari, (almost 1600 km length) and the widest opening in the ghats is found in Palakkad. There are some more openings in the Western Ghats like Perambadi, Thamarasseri, Aramboli etc. These gaps also help the movement of people with other parts of South India but these are just small pathways and not a wider one like the Palakkad gap. The gap was very wide and its width has been calculated as almost 30 K.M. The gap was of course happened through 'tectonic' actions in Western Ghats.⁷ It was such a wide gap to move very easily. The Palakkad gap is situated between two hills called 'Vadamala' and 'Thenmala. From foreign accounts and archaeological records, it was understood that from ancient days onwards the Palakkad gap must have served the role of a 'highway of commerce'. Thus the role of Palakkad gap in molding the history of Kerala started from the very early period onwards. The Sangam texts refer to the use of passes for the movement of the people at that time, which included the Palakkad

⁷ Dr. K. Gopalankutty, *Konganpada Oanam Thoppi (Malayalam, here after mal.)*, SPCS, Kottayam, National Book Stall, 2012, p.23.

pass too. It is widely accepted that Kerala was part of ancient Tamilakam and Chera territory was extended in to this region also. In the other sense, Malabar Coast was lying on the western side of the Ghats and Kongu region was on the eastern side of the Ghats. The expansion of the Chera territory probably happened through the Gap of Palakkad.⁸

Another significance of Palakkad is the existence of a heterogeneous culture of the people who lived there. This culture was explicit on the rituals, living style, food, dress etc. Like that the remains like coins, beads of Roman connection etc were available from various parts of Palakkad, Thrissur and Coimbatore. This indicates the possibility of the use of Palakkad pass by traders from Rome from early historic period onwards. Roman traders largely visited the site called 'Arikamedu' near Pondichery and might have used this pass to visit the port of Muziris in Kerala for trade.⁹ From very early period onwards this route was used for various purposes. Even in medieval period, this route was used for trading purposes. It can be understood from the names of the places, which are being used in present time also. Names of many places like Angadi, Athani, Chunkam etc are found in this route. Palakkad was notable with the settlement of Jaina community too, who were known to be traders. The people who lived in this area may have practiced the rituals and religious beliefs just like the people of Tamilnadu and other parts of South India. Generally the Palakkad gap makes the cultural contacts with various regions possible and inter-regional trade flourished. All these indicate the significant role of Palakkad pass

⁸ Dr. K. Gopalankutty, *The Palghat gap- A study of the influence in the shaping of History*, Unpublished M.A. Dissertation, Dept of History, University of Calicut, 1974, pp. 3- 15.

⁹ *ibid.*, pp.23-24.

in the making of the history of Kerala. The gaps and passes in the Western Ghats have facilitated inter-state contacts only at that time. It was through this gap that many such contacts have been made. There was a reason for the British to consider it as "the key to the West coast". The Arabian Sea and Western Ghats make a boundary to the state of Kerala. In this peculiar geographical location the role played by Palakkad gap is of much importance. Because of the opening, the movement of people was made possible and a mixture of various cultures occurred through this.

The monuments of the Bharathapuzha river basin have a common typological uniformity and the monuments are more similar with the typologies seen in Tamilnadu. The geographical similarities between the two bordering areas of Palakkad pass might have played a crucial role in moulding the structure of these monuments. Similarly, Palakkad gap could have a major role in facilitating population movements that brought this similarity in typology and thus molding the culture of Kerala at that time. The river basin includes three districts of Kerala, Palakkad, Thrissur and Malappuram. The river meets the sea after flowing through Malappuram district. Ponnani is a big harbor in this area, which has a role in early trade relations. In the district of Thrissur it covers the entire Thalappilli taluk to the North of Thrissur. The river basin covers all the three geographical areas of Kerala, that of upland, midland and lowland or coastal regions and large varieties of megalithic monuments have been located in all of them. Forests with small hills are found to be unique in these areas and most of the monuments we explored were found in these hilly areas or elevated tablelands. It is said that the absence of large scale explorations and excavations are the reason for the absence of burial and habitation sites in Kerala. It is

thought that the high population density is another important reason for this. Only the areas under reserved forest have remained as relatively undisturbed by the human beings at present. So the presence of most of the monuments in forest area is not surprising. Rest of the areas were used for various purposes by human beings and where the original monuments have been disturbed. It is possible that habitation sites actually existed proximate to the burial ground and probably disturbed due to the interference of human beings in various ways.

Palakkad is really an interesting area for scholars because of its archaeological importance. It 'slab cists' are the 'typical' megaliths of the Palakkad region through other types are also been found. The region near Palakkad gap contains so many archaeological sites with clusters. Pallatteri and Pallassana contained around 50 megaliths and Elavancheri had 15 megaliths. Apart from that we find 49 megaliths in places such as Konnampara, Mundoor, Naduvattam, Puthusseri, Thenari, Mangalam, Mathur, Koonathara, Kunisseri, Kolappulli, Kuthannur, Parali, Ottappalam, Pazhampalakode etc. Some of the sites where we find megaliths were distributed as clusters. In Palakkad we find the remains of stone tools also. But the Iron Age remains constitute the first most widespread archaeological relics of Kerala. Not only Palakkad but its nearby district Thrissur is also notable with many important sites where we find megaliths as clusters. Both Palakkad and Thrissur districts share the river basins of Bharatha Puzha. Of course Burials denotes human presence on these areas, which may happen due to the fertile river basins, availability of water and peculiarity of the terrain.

Scholars have agreed with the possibility of substantial spread of sites in the area of Palakkad and Thrissur. But no systematic enquiries have been

conducted in relation to this. Here we attempt to analyze the cluster character of burials which is located in Bharathapuzha basin, and try to understand why burials have been found in clusters in this region and how far do they signify human movements. The archaeological and literary evidences from Sangam texts may help to reach a position regarding this significant feature which may throw light into the early history of Kerala. Generally the geographical significance of Palakkad gap and the presence of the largest river basin adjacent to it, along with thickly vegetated area and large use of iron may have played a crucial role in the making of history in its earlier periods. The region also is noted for extensive paddy cultivation and cattle rearing, which might have been the result of agropastoralism from early period.

If we take the case of South India, it is found that the megalithic culture and Iron Age were related to each other. But how this happened is another problem. Studies showed that burial practice began from Neolithic time onwards.¹⁰ Paleolithic burials are mentioned in many works, but it is found that the funeral practice in Paleolithic time was not to be attached with any kind of big stone monuments and other features like this. The burials attached with big stone monuments indicated a change in the funerary practice. The origin and spread of this practice was not traced by any one till this time, on which various opinions are being put forward and debates being conducted.¹¹ In the peculiar geography of Kerala it is very difficult to say anything about the possibilities of the linear development of the burial practice from Neolithic or any stone age.

¹⁰ Veena Mushrif Tripathy, K.Rajan, S.R.Wolimbe, *Megalithic builders of South India- Archaeo-Anthropological investigations on Human skeletal remains from Kodumanal*, New Delhi, Aryan Books International, 2011, pp. 7-12.

¹¹ Megalithic burial culture was undergoing through various opinions by the scholars. A detailed discussion about the origin of this practice is added to the coming chapters.

The absence of horizontal exploration would deny the possibility of discovering any habitation site proximate to the monument. In the case of Megalithic burials the excavations of stratigraphical layers is not possible. Other archaeological sites were revealed through various vertical excavations. But in the case of burials, the experts can unearth or locate most of those monuments through the construction activities of that particular site. These situations prevent a wide range of studies and possibilities in burial culture.

It is generally accepted that the 'Neolithic age' or the 'new stone age' marks a new milestone in the beginning of 'material culture' of the people in this world.¹² In the history of human beings, Neolithic age is marked as a new milestone. The agriculture was considered to have begun here from Neolithic period onwards. In another sense the beginning of agriculture meant the destruction of natural forests and the invention of tools might have helped to clear the forests and growing other crops through human efforts. All these needed collective human power and the invention of strong metals like iron and that may have marked the new beginning in this stage. The hard metal like iron supported men in all sense and it helped the production process, the beginning of settlement etc.¹³ The scope for a linear study is not used here and one has to concentrate on the megalithic monuments and check the possibilities of a settlement proximate to the burial site at that time. Iron Age is a pretty long

¹² Irfan Habib, *Pre-history-peoples History of India, Vol.1*, Aligarh Historians Society, New Delhi, Tulika, 2001, p.48.

¹³ George Erdosy, "Settlement archaeology of the Kausambi region", in *Man and Environment, (Here after MAE)*, Vol. IX, 1985, PP. 68-75. The settlement may be or may not be for a permanent time period. So many studies came regarding the settlement nature of human beings. The study conducted by George Erdosy was one of the new efforts came in this area.

period covering over a millennium and a half. The Megalithic burial relics indicate the material life of the people in early historic period. To be more specific, Kerala megaliths have been assigned to the period between mid-first millennium B.C and mid-first millennium A.D. The early historic period in South India has been generally dated from 3rd Century BC to 3rd Century AD. Megalithic also dates back to the prehistoric period. However, there is a broad correspondence between the two periods. This periodisation can be tentatively accepted until more conclusive evidences are available.

In the contemporary historiography of Kerala the standard practice has been to attribute the development of settlement and habitat to the coming of the Brahmins. Some of the historians of Kerala like MGS. Narayanan, Raghava Varrier, Rajan Gurukkal etc. used the evidences from Sangam literature to understand the material culture of Tamilakam, but there was only cursory efforts to relate the Sangam texts to the material culture that prevailed in Kerala as gleaned from the burial monuments. But the availability of grave goods may support the possibilities of the presence of human beings at that time itself in Kerala like other parts of South India and the surplus production made by the groups who already occupied this land could be the possible base of the emergence of Brahmin settlements in this area. The surplus production might have facilitated the growth of temples. It has been argued that the surplus production was made possible by the bonded labour of the primary production groups.¹⁴ A human settlement was not archaeologically excavated at that time from the basin of river Bharathapuzha, but the cluster of monuments were found

¹⁴ K.S.Madhavan, *Primary producing groups in early and early medieval Kerala: Production process and Historical roots of Transition to Castes (300-1300 CE)*, (Unpublished PhD thesis) Dept of History, University of Calicut, 2012, pp. 3-6.

scattered in the basin indicates certain possibilities. The grave goods distribution and their similarities with other parts of the world may help to understand the presence of the people who lived there. The possibilities of the settlement of craftsmen groups are also examined in this work.

From the writings of foreign authors and Sangam literature it is understood that the people were involved with trade from that period onwards. The presence of precious and semi-precious artifacts from most of the monuments of Kerala and other parts of South India question the argument of 'isolated nature' of Kerala from other parts of the world. The hill products were considered as the main object of trade by the people of ancient Tamilakam. But Rajan Gurukkal also denied the involvement of local people in this trade due to the absence of evidence.¹⁵ He viewed that the local involvement on trade was not to be supported by any sources. Perhaps the imported items were not used by the local people and a social stratification existed there, but Sangam anthologies supported the role of people from hills and sea shore to exchange their products.

The existence of large scale trade centers in the West Coast has also been questioned. The Ports reported in the Roman records were no better than campsites used by long distance traders. Pattanam (Muziris), which has been recently excavated has been argued to be merely a centre of 'bead making' or played the role of a factory. There is a problem found in this argument itself. A group of people was needed who produced this and another group to consume this. It is possible to argue that the production process was done by a group of skilled people, who migrated from elsewhere. But the availability of semi-

¹⁵ Rajan Gurukkal, *Social Formation of Early South India*, New Delhi, OUP, 2012(2010), pp.32-34.

precious stones from the nearby areas of Coimbatore and its surroundings might support the possibility of local adaptations of technology by the local inhabitants.

There may be another reason for the adaptation of such technologies, other than trade, which may lie in the effort to build a burial monument itself. The ceremonial burial and worship of the ancestors have been prevalent among human beings from pre-historic period onwards. To historicize the funeral practices we can cite references from Sangam texts. It is mentioned in the Sangam texts that there were no Gods except hero-stones. So we can assume that hero-stones got more importance in that society. Sangam texts praised a chief as a hero when he killed people of the opposite group or died during the time of cattle raids. We show great respect to a soldier when he killed or died as a part of his duty in the present days too. So Dr. K. Rajan from Pondichery University says that the social status of the deceased might have determined the type and location of a monument.¹⁶ No doubt the act of burial is a deliberate one and it needs time, labour and resources. So, probably the location of a burial site was determined by its cultural preference and not local geology only.¹⁷ In Kerala we found wide distribution of megalith monuments mainly in the areas surrounding Western Ghats, and this might correspond to the kurinji songs where the mountains and their products are praised. A material and cultural outlook of these funeral practices were made by some scholars and they have argued that love and admiration for the deceased persons rather than fear seem to be the main facts behind these practices. Until now the people who worked in this field developed

¹⁶ *Personal interaction* with Dr. K. Rajan, Pondichery University on 9.07.2012.

¹⁷ U.S.Moorthi, *op cit.*, p.46.

the past society through the discussions on Sangam poems or else they just ignored the early historic time of Kerala. So here focus of the study will be on the peculiarities of the river basin as, distribution of monuments as clusters and on its different typologies, grave goods etc. At the same time the absence of habitation can be noticed. But the cluster nature and typological varieties were viewed as the reason for movement of population on that early historic period itself.

REVIEW OF LITERATURE

The writings of British officials and historians like Robert Sewell and William Logan pictured Palakkad as a centre of megalithic remains. 'List of antiquarian remains in the presidency of Madras' in 1882 by Robert Sewell has give a detailed report of the archaeological monuments of Madras in the beginning itself. British officers and historians like Robert Sewell and William Logan also mentioned Bharathappuzha River Basin as a centre of Megalithic monuments. T.S. Ayyangar, R.V. Joshi, Chandrasekhara Menon, Govinda Menon etc are the notable persons who work in the field of Palakkad. They found some microliths made out of Cherts and Quartz from Peringottukurissi and other areas like of Malampuzha and Kanjirapuzha in Palakkad. Stone axes, Flakes, Scrappers, Choppers are available from other areas of Palakkad.

One place close to the basin called Pallavoor was mentioned by Sewell as a centre of dolmens and Menhirs. The village to village surveys conducted by ASI during 1960's and 1970's are the major information sources regarding these areas. The efforts by Raman Namboodiri and Chandrasekharan from ASI have been very notable. Very recently one project entitled 'Historical Atlas of South India' done under the auspice of French institute was very notable. They have

made a map regarding the distributions of megaliths in Palakkad region. Many sources discuss the Megalithic practices in South India. Apart from archaeologists and historians some persons who are interested are involved in this field of study. Some published and unpublished archaeological reports, News paper reports, Books, Journals, articles, Gazetteers, and papers published by Indian and South Indian History Congress proceedings are also found helpful.

'Kerala Megalithic and their Builders' by L.A. Krishna Iyer (1967), was one of the earliest books which deal with Kerala Megaliths in general. It has mentioned different types of burial monuments in general and discussed the geography of that area. As a pioneer work, it was an excellent source material for acquiring basic information regarding the megalithic practices.

Rajan Gurukkal and Raghava Varier edited the book, *'The Cultural History of Kerala'* (1999), which gives elaborate information regarding the socio – economic formations of the iron-age society in Kerala. This is the only work that paid serious attention to the formation of material culture in Kerala during the early Historic period. Unlike the previous works, it also paid attention to the absence of habitation sites in Kerala

K.J. John wrote some articles like “Early man in Kerala” (1973) and “The megalithic culture of Kerala” (1985). He made some valuable contributions to the field of Megaliths in Kerala.

Rajendran. P was another scholar worked on the pre-historic sites of Kerala. He was the first one to trace the Paleolithic tools for the first time in Kerala. His “Archaeology of Kerala” (1989) and “The Prehistoric Cultures and Environment” were notable works.

B. Narasimhaiah wrote a book 'Neolithic and Megalithic culture in Tamilnadu' (1980) was another one. This work has not dealt with Kerala directly, but it helps us to understand the megalithic practices of Tamilnadu and other parts.

Gururaja Rao's book *The Megalithic Culture of South India* (1972) was another work worth mentioning regarding the burial monuments in south India as a whole and make some comparisons.

An article by K.R. Srinivasan, '*The Megalithic Burials and Urn-fields of South India in the Light of Tamil Literature and Tradition*' (1946) helps us to trace Sangam references regarding burial practice.

'*Megalithic Culture of South India*' by U.S. Moorti (1994) was another work. It was more scientific in nature, but did not mention Kerala in a specific way. In his work he gives some typological classifications to this monument.

'*South Indian Megalithic Burials: The Pandookal Complex*' by L .S. Leshnik (1974) was notable. It looks at the Megalithic practices in a cognitive way. It tried to analyze the material and cultural background of that time in more anthropological way. The book is considered as a basic reference for the studies related to this Burial culture and Megalithic monuments. The term 'Pandukal complex' was his contribution to this area of study. The work gives a comprehensive explanation to the burial culture and has discussed the existing general views regarding this issue.

Some archaeological reports of excavated sites in Kerala throw lights into our area of study. '*The Iron Age in Kerala A Report on Maugadu Excavation*' by

T. Satyamurthy (1992) helped us for a comparative study with the typology and remains of our area.

An Article by S.B. Darsana, '*Megalithic Burials of Iron Age - Early Historic Kerala: An Overview*' was a useful paper. It gave a general view regarding the nature of monuments, types, distribution and nature of burials in Kerala in a better way.

An article by V. Selvakumar, '*Cognitive Aspects of the Iron Age – Early Historic (Megalithic) Cultures of South India*' has clearly linked the material – culture of that people along with Sangam Literary evidences.

The work edited by V. Selvakumar 'The megalithic culture of South India' is a good collection of articles by eminent Archaeologists of South India. The book gives a good picture of the archaeological studies which were undertaken in South India as a whole. The articles just deal with the issues related to megalithic culture from various dimensions. The 'material culture' studies were included in these articles but the absence of excavations just pulled back the findings.

After 1960s state Archeological department tried to trace the megalithic sites in Palakkad. They mentioned Cists, Dolmens, Stone Circles, Menhirs Urn burials etc. Persons like V.V.K Valath (1986) and Paulose (1990) made comprehensive exploration as part of general study of the districts which includes the river basin. The efforts taken by Dr. Jenne Peeter about the megalithic distribution of Kerala was an important one. The recent excavations in Anakkara and the findings reported from Kollengode and Pallassana confirm the importance

of Palakkad region as one of the major centers of cultural transition. The steatite beads probably from Karnataka and carnelian beads from Gujarat and broken pieces of an unidentified copper object were discovered during Anakkara excavation in Palakkad. K.P. Shajan Paul, the excavator is of opinion that these are indicative of earliest trade contacts in the region through the Palakkad gap. Many unexplored clusters of cist burials are seen in Pazhampalakode and Thiruvilwamala regions. Archaeologists have found many black and red wave potteries and iron, copper and bronze objects from the site. The excavation conducted by R.N.Mehta and K.M.George in Pazhayannur and Machad is considered as an important one in Kerala. An article by Shinu Abraham '*Applying Anthropological Models of Social Complexity of Early Tamilakam -The Palghat Gap Survey*' was a good work. It mentioned about the Megalithic sites on the banks of Bharathapuzha. In this site traces the sites near by Western Ghats and looks into the significance of Palakkad gap and Bharathapuzha.

But the works which discuss the megaliths of Kerala and the river basins of the state did not come under a serious study. Some isolated efforts were made but the studies based up on the river basins are not found. Kerala is rich with its water sources but the studies based up on the settlement geography of a river basin are not available even today.¹⁸ So it is attempted to trace some sites in that area and use some references from Sangam texts, which support the practices of Megalithic period.

¹⁸ The work done by Rajan Chungath, *Bharathapuzha (Mal.)*, Calicut, Mathrubhumi books, 2013. It mentioned about the general geography and some important families, who belonging to the basin. This work also has not treated the area in the way as we discussed here. It was simply a descriptive exercise from the side of the author.

OBJECTIVES OF RESEARCH

A historical understanding of the material culture of early historic period in Kerala seems more and more complicated due to the absence of sources for that time. The early historic Kerala was still considered a gap in the history of Kerala, to be filled from the Roman notices or by Sangam texts on Tamilakam. The arrival of Brahmins, spread of temples, land donation to the priests etc are generally treated as a mile stone in the history of Kerala. Thiruvalla copper plate of 9th century AD has been the first solid source which throws light to the early life of the people in Kerala. The period before that still exists beyond the standard historical enquiry by the historians. So when framing the period of study in to that early historical period, so many problems were found, the important one being the absence of sources that would yield tangible evidence, such as a habitation site. In this context it was forced to adopt information from the Megalithic monuments of this area. It is found that the monumental distribution was so wide in Kerala, so the Bharathapuzha basin for understanding the material culture of that period. Many typological studies about these have appeared, so here we are trying to enquire about their material culture and have looked at the artifacts through comparative study with literary sources and also with ethno-archaeological material. For analyzing the historical past of Pre or early historic Kerala, the remains of Megalithic burials were the better representation of that time. That period is hoped to be understood through the environmental, technological and cultural means. The study also applied an ethno archaeological approach in to the field of the presence of Potters, iron smith, masons etc. It also aims to find out hitherto unreported sites in these areas and made a map for these sites.

PROBLEM OF RESEARCH AND SOME PRELIMINARY OBSERVATIONS

The study based up on material culture formation of the area hopes to reveal the possible elements of pre or early historic times in the river basin of Bharathapuzha. It asks questions related to

- A. Kind of typologies were found in this area of study
- B. The possibilities of a comparative study within the typology of the monuments.
- C. The common features of those grave goods.
- D. The kind of population possibly indicated by the grave goods.
- E. The kind of technologies used by them and the possibilities of a comparative approach.
- F. Possibilities of ethno-archaeological studies in the case of crafts and artisans groups.
- G. The possibilities of correlating the Sangam references with the available remains of burial monuments.

POSSIBLE THEORIES AND ISSUES OF THE STUDYING AREA

Shereen Ratnagar says that a study about contemporary cultural practices is necessary for a better understanding of any archaeological remains or records¹⁹. In her book ‘Makers and shapers—Early Indian Technology in the Home, Village and Urban Workshop’ applied a regressive method of study for understanding the past. The support given by Archaeological sources in the areas of studies like pre-history, historical or literary sources are more reliable one.

¹⁹ Shereen Ratnagar, “Approaches to the study of ancient technology”, in Sabhyasachi Battacharya (ed.), *Approaches to History*, New Delhi, ICHR, 2011, p.66.

The trends found in archaeological studies were supported by the historical studies and these trends just move from the standard rules of Archaeology and give more space to the interdisciplinary studies for understand an issue. The contributions made by Ian Hodder, Christopher Tilly, Peter Ucko and some other latter Archaeologists are important in this kind of studies. It was in 1960s and 1970s found the emergence of new trends like ‘post-processual’ in archaeology. Unlike the attitudes of traditional archaeologists the people like Michael Shanks, Renfrew, Mithen, Leonard, Barrett etc support the connection of Archaeology with other streams of knowledge.²⁰ Shanks linked the areas like culture and interdisciplinary studies with Archaeology. The people who mentioned above have linked the area of Archaeology with Biology, Sociology, Psychology etc.²¹ Similarly, Renfrew accepts the processual and post-processual ways but he propagates a new trend in Archaeology that is, the ‘cognitive processual archaeology’.²² The new trends of knowledge like Human geography support the spread of the study based up on landscape.²³ This new trends support the importance of ‘sites’ or ‘landscape’ (a region) in the course of history because they believed that the human actions were carried out in specific geographical areas. For example, the people with new trends of knowledge believed that the material remains of a period simply showed the ‘social action’ at that time.²⁴

²⁰ Ian Hodder(ed.), *Archaeological Theory Today*, UK, Cambridge University Press, 2001, P.2.

²¹ *ibid.*, pp.2-4.

²² *ibid.*, p.3.

²³ Julian Thomas, “Archaeologies of place and landscape” in Ian Hodder (ed.), *op cit.*, p.165. The peoples like Gregory, Peet, Seamon etc were the important human geographers of that time. Through their efforts the importance of ‘site’ human actions on their landscapes were began to seek the attention of the studies.

²⁴ Anne yentsch and Mary C. Beaudry, “American material culture in mind, thought and deed”, *ibid.*, p. 215.

Another important scholar who worked in this field is Steven Mithen, who says that human mind is an intangible one, so it needs more ways than pure technologies. In his attempts to find out about the past, he adopted two ways namely Cognitive Archaeology and Evolutionary Psychology. He points that the society never faced any progress in a sudden way; it may take the efforts of so many years to reach in to another stage. He points out that a society can never reach in to an agricultural stage, it would happened only through the developments in the previous stages like hunting- gathering, founding of technology etc. Like that, a burial of course indicates the human collectiveness and he adopts a word ‘home-base community’²⁵ for denoting this kind of a community living. He says that the development happened in human beings through the involvement with ‘nature’. The environment has played a big role in the framing of the life of human beings.²⁶The Processual school of thought developed in America and the peoples like Collin Renfrew and David Clarke were underlying the importance of historical processes, which are the roots of change. Binford emphasized the importance of ethno-historical studies in archaeological interpretation before that and in other sense he proposed ‘environmental adaption” in pre-historical studies. Post-processualists who appeared in the later times opposed the objective view of Processual archaeologists and argued for a subjective understanding of the problem.

In India many opinions from various scholars were found regarding the burial practices that existed here. Scholars like Haimendorf argued that

²⁵ Steven Mithen, *The pre-history of the mind- A search for the origins of art, religion and science*, London, Phoenix Paperback, 1996, pp.111. Cited Glyn Issac’s ‘The food sharing behavior of proto-human hominids’ in a journal ‘*Scientific America*’ in 1978, pp. 120-125.

²⁶ *ibid.*, pp.78-155.

megalithic builders were Dravidian speakers²⁷. T. Ramaswamy observed that megalithic burials found on the slopes of the hills and nearby areas where water is found in plenty and he also says that they used the land which could not be utilized for agriculture²⁸. It is not sure whether they were more conscious about the environmental condition of the surroundings, use of land and other materials of nature, but from the locations of the monuments we are forced to arrive at such an observation.

Most of the Archaeologists connect the life of earlier times with environmental importance. The word 'culture' is simply defined as the 'involvement of human beings with the nature and their environment'.²⁹ Like that the technology invented by man is based on the natural environment. Men have always adapted certain kinds of techniques which are suited for his life. So the development of technology help to understand the changes happened in the life of the people in every society.³⁰ For example in the Neolithic period the people practiced burial culture but they did not maintain a separate place for that practice. But on reaching the period of using iron, the changes had come and began to use separate place for burying the dead and various types of potteries, goods, weapons etc were found to be used. Of course there is a reason for the changes happened in society but that change was not an immediate one; it could

²⁷ Prof. T. Ramaswamy, "Material culture of the megalithic people in Tamilnadu" , in *South Indian History congress proceedings*, (Here after SIHC), Bangalore, 2006, p. 413.

²⁸ *ibid.*, p. 414.

²⁹ V. Selvakumar, "Eco-cultural ethics thoughts from the early Tamil texts' in V.V.Haridas and Haskerali. E.C (eds.), *Multi cultures of South India-New perceptions on History and society*, Karnataka State Open University, Mysore, 2015, P.47.

³⁰ Shereen Ratnagar, *Makers and shapers - early India in technology in the Home, Village and urban working*, New Delhi, Tulika Books, 2007, pp. 1-12.

have been taken so many years. But it indicates the technological development in all strata of human life.

After that some studies and excavations were conducted in various part of Kerala under the supervision of ASI and various other agencies. In that most of the monuments were found collectively located on the hill tracts and high areas. Dr. K.S. Ramachandran, another scholar had also mentioned about the monuments on hill slopes. Like Dr. P. Rajendran says that monuments are found on hill slopes or nearby tanks or another water sources. Along with that he says that they selected the places which were not be utilized for agriculture³¹.

There existed another issue relating to the location of the monument. That means some have raised a question about the date of the monument. Some say that Megalithic culture reached India through Coastal region, so it is much older than the monuments of hinterland area. But K. N. Dikshith discusses it in one of his articles ³²and he says that Gordon Childe and others think that this culture had diffused from West Asia through coasts. But he says that we do not get any evidence to prove this opinion. None of the coastal megaliths especially in India were dated earlier than the monuments of hinterland area.

The emergence of new trends in Archaeology in Western countries has influenced some of the Indian Archaeologists. As part of these, new thoughts were aroused among the minds of Archaeologists and a drastic change began in the practice of archaeology. The archaeology of any particular object (Burial

³¹ K.S.Ramachandran, *Archaeology of South India - Tamilnadu*, Delhi, Sundeep Prakashan, 1980, p.69.

³² K.N.Dikshit, '*Iron age and peninsular India*', in *Puratattva*, Delhi, 1991-1992, p. 33.

monuments, tools etc) was changed to its surface studies and also concentrated on the cultural and cognitive aspects of the grave goods.

While taking the case of my area of study, it is found that most of the burial monuments were located on the hilly areas which are close to the river Bharathapuzha. The types of monuments found in that area were mostly dolmens, cists etc. When moving through the basin of river the typology began to change and when the geographically lower part was reached, the typology was changed to urn burials. It may be showing the possibilities of a consciousness of the people who deliberately began to determine the typology on the basis of area of their habitation. It may indicate some kind of environmental understanding of the people who practiced this kind of rituals and beliefs. With this notion, in this study I adopt the physiographical and geographical understanding to examine the material background of the people of that time. In the other sense when checking a burial monument, it is necessary to understand the technologies applied behind that for understanding the material culture of the people who had built these monuments. Most of the monuments found in Palakkad and the nearby areas are found on the sloped areas of hills which are found to be distributed so close to the river Bharathapuzha.

Such an attempt has to be based on a clear understanding of the geography and environment of Kerala. Kerala, a small geographical area located on South-western part of India is enclosed by Arabian Sea on the west and states of Tamilnadu and Karanataka on the Eastern, Southern and Northern sides respectively. The region is divided into three physiographic zones as the highland, midland and lowland. Kerala was rich in the case of minerals. The use and availability of natural resources like water, minerals etc played a crucial role

in raising the standard of living in Kerala. Increased use of minerals for the production of various tools and implements helped men to develop step by step through several technological periods. The occurrence of minerals is facilitated by the geological features of the region.

Most of the writings in earlier time mentioned that Kerala was not suited for habitation due to its peculiar geographical condition. The absence of archaeological evidence of pre- historical time may lead to such an observation. One thing observed is that the existence of hundreds of burial monuments without a food producing system is difficult to understand. I accept the notion that in the case of Kerala the crucial problem is not the absence of pre or early historic times but the major issues is concerned with the absence of excavations and exploration.

M. L. K. Murthy, who has written a great work in the pre-historic Andhrapradesh, says that in South India, the agricultural system began in 3rd century B.C.; like that the sedentary village system also began in this period. However, similar efforts were absent in the study of early history of Kerala.

Bridget and Raymond Allchin mentioned three steps for the development of settlement in South India.

- a. Settlement find on the top of the hills or the levelled terraces of hillsides, two sides of rivers etc. Material culture of this period comprised stone axe industry, pottery etc.
- b. Settlement pattern continued without any change but progress find in the field of tools, housing etc.
- c. In this phase find the increase in the number of tools and copper, bronze etc.

Bridget and Raymond Allchin provide a general frame work to the emergence and expansion of settlement in South India. Shortly pre- Iron Age settlements came in South India in 3rd century B.C. But the excavations carried on the most important sites of Tamilnadu like Kodumanal push back the period of the beginning of Iron Age in 4th century onwards.³³

So a gradual development within the society is a possible one. It never meant that a separate development of burial culture may happen; of course certain adaptations from outside may have occurred. The settlement of an area is the result of the collective existence of agriculture and other craft production groups. But no part of Kerala is now in a position to say the nature of living pattern of the people who practiced a burial culture at that time. In Kerala excavators recovered only a few agricultural tools (sickles, plough) as such compared with other regions of South India. But some have viewed the issue in a different manner. The absence of sickles may not be a matter at all, because the dense forested geography of Kerala may demand tools like axes, hoes and other types of digging tools to prepare the land for cultivation. That may be the cause for the absence of sickles. All these are certain observations and not a final argument.³⁴

It is not right to say that a well developed or wide production process was prevalent here at that time. But the use of iron and large scale production of tools required a collective effort by human beings. It doesn't mean they practiced a wide level of agriculture, but at least some of them produced or practiced some

³³ K. Rajan., "*Situating the beginning of early historic times in Tamilnadu*", in *Social Scientist*, Vol. XXVI, 2008, pp. 40-42.

³⁴ Personal communication with Dr. V. Selvakumar on 12/01/2013

kind of agriculture even at that period. The iron tools which received from sites at least in a limited number denote the pro- agricultural nature of that society.

Unlike Northern parts of India, South earned attention with the extensive distribution of Megalithic monuments in India. In Northern part of India, we find some sites like Burzahom and Gulkral in Kashmir and Gagrol in the Kumaon area. But no wide distribution of monuments was noticed³⁵. But the question regarding the purpose and origin has remained as a mystery for the scholarly world. In India, the Megalithic practice existed along with Iron as we get the remains of Iron tools or weapons from every monument. But we know that the practice of burying existed before the Iron Age. Grahame Clark says that human beings began to concern about death from Neolithic period onwards³⁶. Many of them support this argument³⁷. So we need to clarify one question whether the Megalithic practice originated as indigenous or through the influence of others. Both these questions are problematic because if the practice is indigenous, then rises the question who was the indigenous people of the region and if it spread through the influence from outside , then who were the agents from outside.

Among the megalithic monuments of South India, monuments from Kerala are considered as those built by the outsiders. The absence of habitation

³⁵ Srikumar M.Menon and Mayank N.Vahia, “Megalithic astronomy in South India”, in *Proceedings of the Seventh International Conference on Oriental Astronomy*, Tokyo, 2011, p,1.

³⁶ Grahame Clark, *Space, Time and Man*, Britain, Cambridge University Press, 1994 (1992), p.57.

³⁷ Srikumar M. Menon and Mayank N. Vahia quote the *article* by Agrawal R.C. ‘The Megalithic culture of India: its spread, genesis and continuity’. It says that the practice of burying the dead was started from Mesolithic period onwards and find in Neolithic period also. And says that it became more popular on Iron age and exists early historic period and later period also.

remains from Kerala is another issue. But Kerala is notable with its unique type of monuments like *Kudakkal* and *Thoppikkal*. From foreign records and Sangam works, we get the evidences of the presence of human beings in this area, but solid source about habitation is not received yet. H. D. Sankalia mentioned that 2, 50,000 years back man lived on the bank of rivers and open places and from Europe we have got evidence regarding the human occupation in caves during winter season. But from India we do not have the caves, except some pre-historic lime stone cave habitations at Andhrapradesh, Central India and Uttar Pradesh³⁸. So we are not able to say clearly that the caves found in Kerala were used for habitation purpose or not, but a human presence can be detected. From Kerala we recovered some Stone Age tools but no other artifacts are available for that period also. In this situation we think that the peculiar geography and environment of Kerala is the reason behind that. Rajan Gurukkal and Raghava Varrrior also support this with the argument like the heavy monsoon and thick vegetation of the area may have restricted the residents from keeping the remains in this area.³⁹

Who were the practitioners of this burial culture is the question asked by many scholars regarding this practice and this time. Here it is interesting to look the observation of a British historian called T. E. Peet. He quotes the arguments of A. A. Lewis that the building of Dolmen or other type of monuments for burying the dead is not practiced by a particular race and at the same time the

³⁸ S.P.Guptha and K.S.Ramchandran(ed.), *Aspects of Indian History and Archaeology*, B.R.Publishing Corporation, Delhi,1977,p.235.

³⁹ Rajan Gurukkal and Raghava warrior, *Cultural History of Kerala, vol.1*, Trivandrum,Department of Cultural Publications, Government of Kerala, 1999.pp.123-145. It says that Kerala is a heavy rainfall area with density of forests. It may cause to the absence of habitation sites in Kerala.

making of a Megalithic monument is a phase of culture and many races and creeds passed through this and spread it⁴⁰. This argument is interesting. He made an observation in this article about the practice of Megalithic monuments in all parts of the world. He says that either the spread happened through the trade contact of people with different countries or it happened through the part of great migratory movement by a single race⁴¹. Most of the scholars support the first as possible. Here, we need to check the possibilities of trade in this context. Tamil classical works and foreign accounts mentioned about the rich sea ports and the coming of Yavanas⁴². One article by Peter Francis in *Man and Environment*, says that Classical works like ‘Puranaanuru’ mentioned Muziris and also says that the merchants of the sea and mountains were coming and sold their commodities. Along with this he says that the beads made at Arikamedu was sent to west through Muziris⁴³. P. Francis adopted the terms used by Babington and Leshnik about Megalithic people, which is ‘Pandukal people’ and says that they were involved in trade and they were the makers of beads in the places like Arikamedu and Kodumanal. He takes references from Sangam literature and mentioned about the existence of the gold makers and he quotes K. Rajan that the Sangam says about the gathering of precious stones by the hillock people and

⁴⁰ T.E.Peet, “Are we justified in speaking of a megalithic race”, in *Journal of British Association*, p. 113.

⁴¹ *ibid.*, p.118. Now found one work by Abraham Benhur, ‘*The Jewish background of Indian people*’ (2011), support the second argument. In this work he argued that the propagators of megalithic monument are from ten lost tribes of Bible. But it gets fewer acceptances from scholars.)

⁴² Earlier books use the term Yavanas to denoting Greeco-Romans. But now admit that this term used to mention the people who crossed the red sea.

⁴³ Peter Francis, “Early historic South India and the International Mraitime trade”, in *Man and Environment(Here after MAE)*,, p. 157.

quotes R. Champakalakhmi about the village of a goldsmith in Sangam age. P. Francis supports the arguments of Murthy, that the areas from the mouth of the river Kaveri to the Palakkad gap, the Pandukal people settled very thickly and they were actively involved in trade⁴⁴. The article entitled 'Problems of Megalithic Architecture in the Western Mediterranean' by British historian E. Thurlow also supports the spread of megalithic tomb construction through inter-trade contacts. S. Suresh also supports the contact through trade relation. He says that Roman accounts mention that the Roman traders crossed the thickly forested Western Ghats and seeing tiger and elephants on their way. The Roman coin distribution on both sides of the ghats supports the possibility of a Roman trade in the region. He says that Roman coins were available on all parts of South India. The Roman coins belonging to Republican and Julio-Claudian and latter periods also available from Kerala and parts of Tamilnadu. So he says a possibility of contact with each other is valid one. Along with this he says that the Carnelian beads available from Pattanam show some resemblance with Kodumanal⁴⁵.

They all support the contact through trade and other purposes. If a person moved to a distant area to search for a job or anything may bring their custom and beliefs along with them. So may be the original inhabitants of the region, who adopt the discovery of a new group of people. However, the validity of this argument can only be tested through careful analysis of the

⁴⁴ *ibid.*, p.157-158.

⁴⁵ Dr. S.Suresh, *Arikkamedu: Its place in the ancient Rome-India contacts*, New Delhi, Development Co-operation office, March 2007, pp. 20-27.

artifacts, grave goods and ethno-archaeological features that can be accessed from a megalithic site.

METHODOLOGY

To conduct analysis and give interpretation to the secondary sources the standard methodology of analysis and interpretation of the secondary sources is used for this work also. The study, however, is based on field work and site surveys at all the excavated, explored and unexplored sites in this area. It is a historical study that has used ethno-archaeological kind of enquiry for a better understanding. Elements of Archaeological kind of enquiry have been used for understanding the problem in correct way. The history of pre or early historic time is a crucial area of study that has not been fully undertaken until this time. Ethno-archaeology has been used in a sense that a 'regressive' kind of understanding is made in the case of these craft groups who are found to follow the same occupation in the areas where megalithic monuments were traced. The periods like pre or early historic time are not to be analyzed on the basis of literary evidence alone. So it is better to trace the history from a known present to an unknown past and technology and labour processes that survive up to the present provide interesting insights into the processes in the past through scientific comparisons. Interestingly, through the field works it was able to trace the settlement of these groups of people in the entire area of study where the megalithic sites have been reported. Along with this, we use these data for a corroborative study with literary and archaeological sources. Finally the evidence so collected is examined on the basis of existing theories and methods for an apt conclusion.

Chapterisation

The thesis entitled 'FORMATION OF MATERIAL CULTURE IN THE BHARATHAPUZHA BASIN DURING THE PRE-HISTORIC AND EARLY HISTORIC PERIOD – A STUDY OF MEGALITHIC BURIALS' has been divided in to five chapters including the introduction and conclusion chapters.

The first chapter includes the introduction of the issue, like the megalithic monuments, its peculiarities in Kerala, problem of research, previous studies and review of the existing literature, methodologies which used in this study etc came under this division.

The second chapter 'Megaliths and Material Culture in South India' deals with the general features regarding the practice of megalithic burials found in all over India and South India, the transition of burial practices from Neolithic to Iron Age culture; it deals with the culture and material culture of a society. Likewise, it deals with the basic problem regarding the origin of the practices, typology of the monuments and it analyses the Tamil literary sources with available archaeological evidences.

The third chapter 'Archaeological Evidence from Kerala' mainly concentrates on the archaeological importance of Kerala and examines the megalithic distribution of Kerala and from this we make a new look up on the early history of Kerala and have made an argumentative look up on the settlement of Ancient Tamilakam and also makes a comparative study on the evidence of grave goods with literary sources for tracing the pre or early historic living status of the people.

The fourth chapter 'Ethno-Archaeological Study of Gayathripuzha Basin' gives a broad explanation to the geography and physical environment of the Bharathapuzha basin and mentions the origin of the river, its tributaries, areas which covering by the rivers and its tributaries, the distribution of the monuments on river basin, check the settlement of the people from various craft men communities etc. An ethno-archaeological method was applied here for a proper understanding of the problem. Also co-relate the linguistic and archaeological evidences of the area of studies.

The fifth chapter is arranged as the concluding portion and makes an open conclusion of the present issue because the excavations are going on in a very primary level in Kerala so its needs further efforts to find or reveal the archaeological inventions of each stage. An open conclusion is selected for this issue because of the requirements of further excavations and explorations which may add or change the existing notion of the problem.

SUJATHA. K.S. “FORMATION OF MATERIAL CULTURE IN THE BHARATHAPUZHA BASIN DURING THE PRE-HISTORIC AND EARLY HISTORIC PERIOD – A STUDY OF MEGALITHIC BURIALS”. THESIS. DEPARTMENT OF HISTORY, UNIVERSITY OF CALICUT, 2018.

Chapter-2

MEGALITHS AND MATERIAL CULTURE IN SOUTH INDIA

In a broad sense History is the study of past. But when it deals with pre or early historic time it is seen that so many vague and unstable arguments or views have appeared which have raised doubts about the sources which were used, authenticity of the sources etc. The main problem of the period is the lack of direct or solid sources when comparing with later periods. So, historical studies of that period definitely need to be supplemented by information from archaeological sources. The people who worked in this field are forced to adapt Archaeology and its findings for make the observations more accurate. Through the archaeological discoveries we recovered the remains of various cultures which were existed in pre-historic period. Among these we find the remains of 'Megalithic culture' distributed widely in almost all parts of the world. Here we have used the term 'culture' to denote that particular period, where the archaeological evidence points to the dominance of burial practice than any other human practices in human life.

The term culture itself is a problematic term. E.P.Thompson says that "culture is less as a whole way of life, more of a "whole way of struggle".¹ All we know the concept 'culture' also is a matter of debate and problematic one. When take the opinion of E.P.Thompson, it is found that the 'materials of each period represent their way of existence and in one way those materials represent

¹ Michael shanks,"The dispersion of a discipline and its objects", in Ian Hodder (ed.), *'Archaeological theory today'*, UK,Cambridge, 2001, pp. 284-300

their means of struggles which are lead for their existence'. When we are dealing with the history of early historic South India, especially the case of Kerala we have many sources other than megalithic monuments. As already stated the term 'culture' is controversial and it gets various opinions from peoples who worked in this field. F.R. Hodson in his article, "Culture as Types - Some elements of classification Theory" says that 'culture may be representing a number of assemblages or a group'.² From this we understood that assemblages with certain common characters are generally included within a single cultural phase. In that sense with the term 'culture' here meant, the common or a same behavior of the people in a particular time frame. The study based upon material culture has developed from the background of a theoretical archaeology. New archaeological trends have supporting the archaeological interpretation of things for understanding the culture existed at that period. Some say that each culture has an 'adaptive mechanism' for dealing with each local environment.³ Every culture was changed according to the nature of its surface environment.

Anthropologists like Weber say that culture is different from Civilization, and culture generally deals with the day to day activities of human beings, their art, philosophy, religion etc. The things like art, belief, practice etc are found to be reflecting up on that particular society, so the study about culture definitely comes under these.⁴

² F.R.Hodson, "Culture as types? Some elements of classification theory", in *Bulletin of the Institute of Archaeology*, (Here after BIA), No17, University of London, 1980, pp.1-9.

³ K. Paddayya, "Paleoethnography vis-à-vis the Stone Age cultures of India: Some methodological considerations", in *Bulletin of the Deccan college research institute*, (Here after BDCRI), 1978-79, pp. 63-64.

⁴ Vinay Krishna Gokak, *India and World Culture*, Delhi, 1972, p.131

D.A. Welbourn in his article “The role of blacksmiths in tribal society” says that ‘the nature of individuality of a society can explicit on the material culture of that particular society’. Welbourn is of the opinion that a complete study based up on beliefs and action is necessary for understanding the people who occupied at that particular society.⁵ When tracing the background of burial practice it is seen as more complex one. From Paleolithic period onwards we find the remains of the burial practices in different contexts.

Archaeological trends which help in historicizing the burial culture

The stream ‘Archaeology’ is comparatively a new branch of knowledge played a crucial role in pre-historical studies. In 1960s we meet with so many changes in archaeological trends. Lewis Binford played a main role in that. Binford believed that archaeologists and Historians have worked in entirely different contexts and have no relation with each other. He opposed the purpose of ‘cultural history as a whole’.⁶ After him came so many persons who have opposed and supported his ideas. processual and post-processual are such kinds of trends that emerged while responding to the arguments of Binford. The recent trends like post processual archaeology had made huge contribution to the interdisciplinary studies. It helps the streams like history and anthropology largely for tracing the history of pre and early historical period. The Cognitive Archaeologists now make their area rich and make it accessible to other branches of knowledge. In the beginning stage of archaeological studies, they just made a ‘report or field note’ about the sites or its artifacts, which consisted of technical

⁵ D.A. Welbourn, “The role of blacksmiths in tribal society”, in *Archaeological review from Cambridge*, (Here after *ARC*), July 1981, vol. 11, pp.30-38

⁶ Ian Morris, ‘Archaeology as cultural history’, in *ARC*, vol.14: 1, 1997, pp. 3-5.

data. But when the archaeologist's began to deal with the material culture of the past, the situation changed. Through these trends Archaeology began to deal with the cultural history of the past.⁷ Shanks says that the archaeologists were not free from their duty when they finish the collection of artifacts from one site, at the same time it will completed only when the validity of the findings in that particular society is understood. He opined that a landscape has close relation with its peculiar artifacts.⁸ Joseph A.Tainter is of the opinion that with the new insights in Archaeology, archaeologists considered the burial remains as a symbol of social interactions than the individual remains of mortuary practices or beliefs.⁹ It meant the trends like processual, post-processual, and cognitive archaeology consider the issue as a problem of a society rather than a personal ritual or practice. Allchin, another scholar who worked in this field viewed that regional variations have occurred in each culture.¹⁰ This argument is found to be relevant in the burial types also, in every where the burials were seen as different in typology.

The ethnographer Keith Nicklin says that, most of the archaeologists who worked in the field of settlement archaeology mainly focused on cemeteries than any other artifacts. He says that, a change is need for this kind of observation. His view is that all these cemeteries most probably belonged to a nearby migration route. All we know that, a 'route' emerged or was created only

⁷ *ibid.*, p.12.

⁸ Michael Shanks, op cit., pp. 290-95.

⁹ Joseph A.Tainter, "Social inferences and mortuary practices an experiment in numerical classification", in *World Archaeology*, (Here after WA), Vol. 7, No. 1, 1975, pp. 1-15.

¹⁰ F.R. Allchin, *The Archaeology of Early Historic South Asia- The emergence of cities and states*, Cambridge University Press, 1995, p.2.

through the regular movement of human beings. So it is better to check the nearby sites of that particular monument for more evidences.

Some Archaeologists and Anthropologists apply a method of ‘analogy ‘to link past with present. For example in the case of megalithic practices we have only certain notions and no solid source to prove whether it was a ritual or it indicates some other practice. So in most cases a study based up on a comparison and surface is most needed one.

Lewis Binford was an eminent archaeologist who introduced ‘Middle range theories’ for archaeologists. For example he says that when we excavate a cemetery we may come across two graves, one with many goods and one with few. From the visibility of the artifacts we make certain assumption that, these two types of graves shows social inequality, hierarchical society etc. But this kind of an observation came through the application of our commonsense.¹¹ The book *Those who vanished- An introduction to prehistory* by Ronald L.Wallace is noticeable with his assessment on past. He says that even Neanderthal man also knows about death and he give details of some graves which bury them. Along with this he applied ‘Theory of cultural evolutionism’ to explain the past. In this he argues that due to the change in technical behaviour and social relations the whole society will be changed. He says that every society changes through their learning experiences, that may be take long time. So he says that the human burial practice may be a reflection of feeling of compassion and a feeling of humanity.¹² We think this is an analogy made by him. Many other observations are found relating with this burial and pre-historical period.

¹¹ Mathew Johnson, *Archaeological Theory an Introduction*, USA, Blackwell Publishers, 2002 (2001), p.10.

¹² Ronald L.Wallace, *Those who vanished-An Introduction to Pre-history*, Homewood, The Dorsey Press, pp.9-25.

Megalithic burials of South India: Definitions and observations of burial practices

a. General arguments regarding the Linear growth of burial culture

The beginning of the practice of burying the dead is traced by many scholars from various periods onwards. Allchin and Allchin fixed the beginning of burial practice from Mesolithic period onwards. Scholars like Gupta, Leshnik, Sahi and K. Rajan have agreed with the views of Allchin and say that this practice began from Mesolithic and continued through Neolithic and Chalcolithic periods. But most of them agreed that during the Iron Age onwards it spread and the kind of elaborate burials began to appear.¹³ Some have argued that the practice of burial started from Mesolithic and Chalcolithic period onwards, but a drastic change was seen from the previous periods, that shift of the place of burial from settlement area to a separate place which is sometimes far off from their living areas.¹⁴ The practice of cemetery or burial is found to have begun from Harappan period onwards. The remains from Harappa strengthened the possibility of the existence of cemetery practice there. Wheeler, Kennedy, Dales, Marshall also have shared same view. So we think that in every society the practice of burying the dead exists in one or another way. When he excavated the site at Brahmagiri, Mortimer Wheeler thought that the period of the burial monument was approximately between 2nd century B.C and 1st century A.D. He made this observation mainly on the basis of the stratigraphical position

¹³ Vibha Tripathi, (ed.), *Archaeology in India*, Delhi, Sharadha Publishing House, pp.376-380.

¹⁴ R.K. Mohanty and V. Selvakumar, "The archaeology of the megaliths in India-1947-1997" in S. Settar and Ravi Korisettar,(ed.), *Indian Archaeology in Retrospect: Prehistory-Archaeology of South Asia, Vol.1*, Delhi, Manohar publishers, 2002, pp. 332-33.

of Roman and Satavahana coins.¹⁵ S.B.Deo is of the opinion that the typological variation may indicate the existence of a sub-group within the megalithic community and says that most of the burials are secondary in nature.¹⁶

The burial remains found in the Harappan and post-Harappan societies may be fractional or post-cremation.¹⁷ Marshall mentioned the availability of post-cremation urns from Mohenjo-daro. Mackey says that cremation was the dominant method of disposing of the dead at Mohenjo-daro. From Lothal we observe the remains of double burials.¹⁸ From this we understood that the practice of burying the dead is exists in all societies. But the remains are found lying in here and there and not in a separate place for burials.

We know that Harappa and Mohen-jodaro are the earlier civilization of India and from there it needed long year's journey to reach Megalithic period. There exists long gap between the period of Harappan and Megalithic societies. The similar kind of practices was also seen from Harappa and Mohenjo-daro. The post-cremation burials are found in plenty at both sites. Sir John Marshall made a critical analysis of the archaeological evidence and concluded that they practiced cremation as the general way of disposing of the dead during the time of the Indus culture.¹⁹ But when we reach Megalithic time we find that the dead

¹⁵ K.M.Srivasthava, *New Horizons of Indian Archaeology*, New Delhi, Books and Books Publishers, 1988, pp. 156 -157.

¹⁶ S.B.Deo, *Megaliths in India*, in South Asian Archaeological Congress, (Here after SAAC), New Delhi, 1986, p.12.

¹⁷ Shereen Ratnagar, "The location of Harappa in Harappan civilization" in Gregory L. Possehl (ed.), *Harappan civilization*, New Delhi, Oxford & IBH publishing, 1993, p.261.

¹⁸ Gregory L.Possehl, *ibid.*, p.80.

¹⁹ John Marshall, *Mohenjodaro and the Indus civilization, Vol.I*, Delhi, Indological Book house, 1973 p.89.

has got separate place and elaborate forms. The making of elaborate burials appears to have begun from Iron Age onwards. Along with that other than the technological development or the invention of iron probably some beliefs and customs also have begun to follow. That customs may be adopted through various kinds of contacts with various parts of the world. Not only the burial monuments in India but also the monuments of other parts of the world also received attention from archaeologists, anthropologists, historians etc. Some origin theories also start from there.

b. Megalithic distribution in other parts of the world

Megalithic monuments at Western Mediterranean and Western Europe and Northern Europe have gained the attention of scholars from 16th century onwards. But Glyn Daniel says that only from 19th century that all such monuments were categorized under one title as ‘Megalithic monuments’. Glyn Daniel in his book *Megaliths in History* argues that these monuments are contemporary to Romans. He again quotes one archaeologist called Joseph Raftery and says that Megalithic monuments were built on early Iron Age that was in Roman times. For this he traces so many burial monuments in Europe and some Roman occupying places with same character and with same chronology. Again he says that grave culture was so strong in that period. Grave goods from the monuments help us to understand the material background of that society.²⁰

It is generally considered that in early period men lived with hunting and gathering and only in neolithic period itself they get development in stone and pottery making. From the parts of South India we get the remains of urns from

²⁰ Glyn Daniel, *Megaliths in History*, UK, Thames and Hudson, 1973, pp. 57-89.

neolithic period onwards. It is emphasized that the practice existed from that period itself.²¹ Some have observed that a group of people migrated to South from Neolithic period itself through the Deccan and Kongu area. They might have spread the use of Iron and the techniques of agriculture on here.²² Megalithic monument was seen to be distributed most widely in South India than any other pre-historical culture, but the availability of microlithic tools from the surroundings of the burials indicates the presence of neolithic folks in South India as a fact. K.M. Srivasthava says that the Black and Red Ware (BRW) used in neolithic period may transformed latter as huge ceramic industry.²³ The development of lithic technology and metallurgy showed that the collectiveness of that society became strengthened and it may reflect the material culture of that particular period itself. Again scholars like Glyn Daniel and Gordon Childe etc. support the practice of building megalithic monuments as a result of spread happened through sea voyages. Gordon childe considered architecture as one of the criteria for urbanity. But Andrew Sherratt viewed that it is not feasible to treat megalithic monuments like Mesopotomia and Egyptian architecture. Sherrat says that other than the reflection of urbanity megalithic monuments showed the reflection of the spread of farming and agriculture. He says this because megalithic monuments were relatively unskilled and unprofessional in nature when compared with the architectural quality of Egypt and Mesopotamia. Andrew Sherrat argued that the megalithic culture is more related with plough agriculture and the beginning of settlement pattern and an urban character is comparatively very low. He connects the burial remains along with the

²¹ M.S.Nagaraja Rao, *The Stone Age Dwellers of Thekkalakotta*, 1965, pp. 32-33.

²² V.Ramamurthy, *History of Kongu*, part. 1 (pre-historic period), Madras, 1986, pp. 57-59.

²³ K.M.Srivasthava, op cit., pp.153-154.

beginning of settlement in human history. In most part of the world megalithic culture was found along or immediately after neolithic period. So Sherratt says that village settlements began from neolithic period onwards and its extension is reflected on its later cultures. Andrew Sherratt along with Ian Hodder viewed that burial monuments as the reflection of living villages and they says that probably the huts which they used is scattered here and there. Along with this they opine that the wide distribution of burial was the symbol of a prevailing practice on that particular society or may be showed a continuation for the existence of a ritual practice at there. Like that the large stone structures indicate the co-ordination of labour force for some common purposes.²⁴ Burial monuments are the only source which we get evidence regarding the social life of the people at that time. The availability of iron implements from the burial grave was another significant feature of this culture. Mortimer wheeler²⁵ viewed that the credit to localize the use and production of iron went to megalithic culture. Some say that the invention of iron was an accidental process, but for making a pure iron implement it needs so many processes and high temperature. So the chance for an accidental invention of iron is very low. But the wide distribution of iron tools and weapons indicates that the hardness of the metals was gradually understood and accepted by the people who lived at that time. The invention of iron probably makes severe change in the total structure of the society. Fred T. Plog in his work, *The study of pre-historic change* viewed that peoples from different social status have practiced different forms of burial customs. Along with this he viewed that the use of large storage jars were

²⁴ Ian Hodder, *Archaeological Theory Today*, UK, Cambridge, 2001, pp.2-10.

²⁵ Mortimer Wheeler, *My Archaeological Mission to India and Pakistan*, London, Thames and Hudson, 1975, pp.59-65.

indicating a gradual change in that society. Along with the development of pottery technology it shows the availability of resources and the efficiency of the productive system. May be the development occurred in the use of iron and other metals are a continuation from previous stages.²⁶ Some have supported the origin of megaliths from Scythio-Iranian area.²⁷ All these views shows that the new emerging trends in Archaeology have began to give big support to the historical studies in this field. Through their contributions the study about early historical time is turned to become more accurate.

Megaliths in South India –general considerations

The megalith in India especially South India was notable from the findings of monuments by Babington in 1823 at a group of burial monuments from Banglamotta Parambu in Calicut the northern part of Kerala. Latter those megaliths have been reported from all parts of Peninsular India. The report published by J. Babington in 1823 about "Pandoo coolies of Malabar" is the first published report about this monument. Colonel Colin Mackenzie noticed megalithic burials even before Babington in South India, but they remain unpublished.²⁸ After the publication of the report by Babington in Kerala so many megalithic monuments were reported not only from South India but also from eastern and northern parts of India. But it was after the publication of report by Babington in 1823 that scholars began to give attention to this monument. The archaeological research from 1940s witnessed a major shift from an antiquarian interest to culture and historical level.

²⁶ Fred T. Plog, *A Study of Prehistoric Change*, Academic Press, New York, 1974, p. 100.

²⁷ P. Gupta and Dutta P.C, "Human remains excavated from Megaliths at Yelleswaram", in *Man in India*, vol. 42, (Here after MI), No.1, 1962, pp.19-22.

²⁸ S.B. Darsana, "Megalithic Burials of Iron Age - Early Historic Kerala: An overview", in *Man and Environment XXXV(2)*, (Here after MAE), 2010, p.99.

Megalithic monuments are the most visible archaeological remains in India. Not only from here, have other parts of the world also found the distribution of these kinds of monuments largely. It is only since 1945 that the Indian Archeological Department has been conducting systematic works on these monuments. From here after so many years the archaeologists began to analyze the relationship between social practices and patterns of material culture of that period. The use of Black and Red pottery and the use of iron are generally considered as the main attraction of this culture. Some has pointed out about the similarity between Black and Red pottery with Black topped pottery of Egypt.²⁹ The construction of megaliths in British was started from neolithic-mesolithic period onwards and continued up to chalcolithic, bronze and iron periods. Stone henges, passage tombs etc. are most common varieties found in here. Menhir and stone circles are most common in Ireland areas.³⁰ But no authentic explanation is received for a comparative study than the widespread distribution of monuments in all over the world.

Whole matter relating with the megalithic monuments are still exist as a puzzle. Where, when and how the idea of megaliths originated and diffused is still a matter of controversy. So many opinions are seen relating to this issue. Some have make the connections from harappan period onwards and it developed through vedic, palaeolithi, mesolithic, chalcolithic and neolithic periods and trace the existence in Early historic also. The overlap between megaliths and Iron Age is generally accepted.

²⁹ H.Sankar, "Some Aspects of Megalithic Culture of India", in *Puratattva* No.11, K.N. Dikshit (Ed), *Indian Archaeological society*, Delhi, Puranaquila, 1979-80, p.49.

³⁰ Chris Scarre, *Megalithic Monuments in Britain and Ireland*, UK, Paperback, 2007, pp.65-156.

All we know that the issue relating with megaliths is still remained as a puzzle. As I already mentioned that the Scholars from different parts of the world made different views regarding the practice, origin, nature etc. of the megalithic monuments. The diffusionists like Elliot Smith and W.J. Perry who thought that the megalithic monuments all over the world had been diffused from ancient Egypt.³¹ Persons like Meadows Taylor, J.W. Brecks, W.J. Walhouse, and Alexander Rea etc. had a rational approach to unravel the mystery relating to these monuments. Mortimer Wheeler who introduced scientific approaches to the study of Indian megaliths and following him came various Indian archaeologists like Krishnaswami, Srinivasan, Banerjee, Soundara Rajan, B.K.Thapar and others. Besides, Gordon and Haimendorf devoted their entire life time for the study regarding the nature and distribution of the megalithic monuments.³²

V. Gordon Childe published an article in *Ancient India No. 4* about the widespread distribution of megaliths in all over the world. He argued that the term megalith was originally used to denote the monuments like Celtic dolmens, Cromlechs, and Menhirs of Western and Northern Europe by Antiquarians. He traced the continuous distribution of monuments on the coasts of the Atlantic, North Sea and the Baltic areas. Some port-hole stones are found in northern and western Europe.³³ It has been argued that burial types like sarcophagi and cist clearly indicates the influence of ideas floating from the Mediterranean and West

³¹ B.K. Thapar, "Porkkalam 1948: Excavation of a megalithic urn burial", in *Ancient India*, (Here after AI), 1949, p.14.

³² B.K. Gururaja Rao, *The Megalithic culture in South India*, University of Mysore, Prasaranga, 1972, pp.2-3.

³³ V. Gordon Childe, "Megaliths", in *Ancient India No.4*, (July 1947- January 1948) p.5.

Asia, probably through overseas trade contacts.³⁴ However, there have been problems related to the chronology of the monuments. Most of the excavated monuments of India are notable with the presence of iron implements and wheel made potteries, so we think that the burial culture was highly related with Iron Age also. Another argument shared by Keith Nicklin is found to be important; he says that in the beginning stage it is believed that the practitioners of megaliths were pastoral nomads and not relating with any settled groups. But he says that recent studies cannot fully accept that nomadic character of the burial practitioners, they found it as the cemetery of Tamil peasants or other trading groups etc. He also point out the possibility for an intervention from outside³⁵.

It is relevant to view the arguments of Leshnik along with this. He says that the iron and copper belt buckle is found unique and says that it must be a western origin and not from Indian context. So the common arguments like the possibilities for an outside intervention are accepted by Leshnik too. He viewed that unfortunately we received only few ploughshares which were find directly related with cultivation and get so many sickles which considered as probably used for cultivation and cutting in early historic period in India. Leshnik shared another view that the Pandukkal Complex was related with settled agriculture. He says that the pottery type like BRW is considered as to be found in settlement areas on most cases.³⁶ Due to the absence of adequate habitation sites most of

³⁴ K.V. Soundara Rajan, "Identifying the Megalithic Builders in India-some factors", in *spectrum of Indian culture Vol.I*, C.Maugabandhu & K.S. Ramachandran (Ed), Delhi, Akamkala Prakshan, p.133.

³⁵ Keith Nicklin, "Stability and innovation in pottery manufacture" in *WA, Vol.3*, No.1, 1971, pp. 13-48.

³⁶ L.S.Leshnik, *South Indian Megalithic Burials-The Pandukal Complex*, Franz Steiner Verlag GmbH Wiesbaden , 1974, pp.18-20.

them agreed to the fact that the megalithic peoples were pastoral, nomadic or semi-settled agriculturists etc. At the same time the excavation reports from Maski raise the possibility that the megaliths were settled agriculturists. But all these need enough material evidences for supporting this possibility.³⁷

However, N.R. Banerjee argues that Megalithic technology came to India from northern Iran and Central Asia through Baluchistan and Vindhya. Scholars like Leshnik, Allchin and others support this view. But many others disagree with this position and have put forward other alternatives. Some scholars have suggested indigenous origin for the megalithic practices. B.C. Pande and G.S Ghurye support this. Ghurye opines that dolmens originated in India by about 1000 B.C. K.V. Soundara Rajan thinks that Indian megaliths were entirely Indian manifestations of this world wide megalithism. Subba Rao provided solid evidence in South India for the prevalence of pre-black and Red ware and pre-iron megalithic complex. Leshnik enlarged the Central Asian theory and Lal made comparisons with Indian megaliths and Nubian graves in Egypt. But he is also aware of the fact that in the Nubian graves iron is completely absent.³⁸ Gordon Childe says that the megaliths in India possibly originated from two ways. One is from West Asia to South Asia and through maritime routes. Like that the European dolmens have been identified with Stone Age and do not contain wheel made pottery.³⁹ So the European megaliths are much older than the Asian ones as they have been located in a broad time

³⁷ B.K.Thapar, "Maski 1954: A chalcolithic site of the southern Deccan", in *AI*, 1957, pp. 43-140.

³⁸ T.V. Mahalingam, *Studies in South Indian Archaeology, Architecture and sculpture*, The A.S. South India publishers, Madras, 1978, pp.61-62.

³⁹ B.K.Thapar, "Introduction to Bibliography of Indian Megaliths", in *Quarterly Journal of mythic society* Vol. 61, (Here after QJMS), Bangalore, 1970, p.19.

bracket from 5000-2000 B.C.⁴⁰ Generally South Indian megalithic chronology was fixed 10th Century BC to the beginning of Common Era, and the early historic from 3rd century B.C to 3rd century A.D , with some overlap between the two. The evidence from Porunthal and Kodumanal, that are being excavated recently, indicate that the date of early historic is likely to be pushed back. So many burial monuments were distributed in South India, U.S. Moorthi listed, 665 sites in Karnataka, Tamilnadu 607, Andhra Pradesh 300 sites, Kerala 270 and Maharashtra has 91 sites.⁴¹ But year by year the number has increased; the French Institutes Atlas of South India has rearranged this number.

Kennedy and Levisky are two scholars who have analyzed a large number of skeletal remains from various megalithic sites and conclude that Indian Iron Age populations were relatively heterogeneous and did not belong to a single homogeneous racial element.⁴² The similarities were found in the case of the monument type and its grave goods but through carbon dating techniques the time gap is visible. It suggests that the megalithic culture of Karnataka and Andhra Pradesh were earlier than those of Kerala. So a homogenous theory is not accepted generally.

Authorship was another problem relating to megalithic culture. Haimendorf has argued that the authors of Indian megaliths were Dravidians. His opinion is that the megalithic folks were migrated from Mediterranean area in around 500 B.C. Again says that they ousted the earlier inhabited Neolithic

⁴⁰ D.P. Agrawal and J.S. Kharkwal, *Bronze and Iron ages of South Asia*, New Delhi, Aryan Books International, 2003, p.235.

⁴¹ U.S.Moorti, *Megalithic culture of South India-Socio Economic Perspectives*, Varanasi, Ganga Kaveri Publishing House, 1994, pp.4-5.

⁴² D.P. Agrawal & J.S. Kharkwal, op cit., p.43.

men from here and spread in whole of South India. He says that Mauryan emperor Asoka in his edict addressed only megalithic people⁴³. The Dravidian theory was supported by Zuckerman also. D.H. Gordon accepted the Dravidian authorship. Asko Parpola argued that the megaliths were Aryan in origin. It is feasible to take the issue relating with the origin of iron in India as a complex debate.⁴⁴ Srinivasan also supports the Dravidian authorship with the evidence of Sangam literature, because texts like *Purananuru* and *patittupattu* mentioned the practices of iron smelting. Banerjee along with linguistics experts like Burrow and Kuiper supports Dravidian authorship. The megalithic culture spread in to Maharashtra, Karnataka, Andhrapradesh, Tamilnadu, Kerala, Kashmir, Himalayas and the aboriginal tribes of Assam, Chota Nagpur, and Bastar have a living megalithic culture. Most important megalithic site of India is Vidharbha which have been restricted to non-urban areas. They concentrated apparently in hilly, or wasteland rather than well-watered tracts fit for agriculture. But from Vidarbha we have got only few agricultural tools. In Allahabad and Mirzapar districts we found the distribution of cists in more quantity. Vindhyan region has a notable position in megalithic map, but the reports of the excavations conducted in this area have not been published so far.⁴⁵ May be the publication of this report gave more clarity to the picture. The megalith of Mahurzhari, situated near Nagpur in central India was another important site. Vidarbha was one important habitation site also. Kodumanal, Chandravalli, Maski

⁴³ Haimendorf, *Indo Asian culture II*, No.3, 1954, pp.237-238.

⁴⁴ R.K. Mohanty and V. Selvakumar, op cit., pp.329-30.

⁴⁵ S.B. Deo, "The Megalithic: Their culture, ecology, economy and Technology", in *Recent Advances in Indian Archaeology*, Deccan College PG and Research Institute, Poona, 1985, p.94.

Sengankallu, Brahmagiri in Karnataka, Sengamedu, Paiyampalli, Alagarai in Tamilnad, Nagarjunakonda in Andhrapradesh also are other important sites.

The scholars with cognitive outlook look this megalithic culture as a way to understand the concept of death, heaven, hell etc. The elaborate construction of monuments like Passage chamber tombs with single and multiple alignments, Sarcophagus etc indicates their belief in life after death. Sangam literature have mentioned about the existences of these concepts in that period.⁴⁶

We find that all societies have developed through pre-proto and historical times. In pre-historical period we have no written sources. But we get many ancient monuments which represent that period. So we need to trace the past through the hitherto unknown monuments and through the logical explanation of its particular thing. Logical explanations are coming through scientific analysis and comparative studies. With the development of science the scientific analysis became easier. Because already mentioned that the megalithic culture was overlapping with other cultures. In South India, at Brahmagiri also we found the megalithic culture was overlapping with earlier neolithic and Andhra culture.⁴⁷ In Kerala we found the megalithic graves filled with Roman coins, we do not know exactly about the indication of these things. But like the arguments of Glyn Daniel there is a chance for some relation with Roman world. That was commercial as well as cultural contacts with each other. Karthigesu Siva Thambi in his work *Studies in Ancient Tamil society* says that from Sangam period

⁴⁶ V.Selvakumar, “Cognitive aspects of the Iron age- early historic cultures of South India”, *National Seminar on Indian Megaliths, Archaeological and Ethnographic Sources*, November 2005, pp. 23-45.

⁴⁷ Dr. K. Rajan, *Archaeology of Palar basin*, Tanjore, Tamil university, 2000, p.95.

onwards the maritime relations with foreigners existed. The relation with Far East and Rome flourished during this time. In his work he quotes Vincent A. Smith, says that pepper and precious stones were plenty in India. Pliny remarked India as “the sole mother of precious stones”. All these indicate a kind of relation between ours and outer part of the world.⁴⁸

A better understanding of major burial types and its geographical position is necessary to make a typology of that particular area. We are not sure when this practice of erecting large monuments were started. The reports from various places shared the period of the monuments in different angles.

When dealt with this issue H.D. Sankalia says that a culture was formed may be due to indigenous origin otherwise spread from other areas. This diffusion was weak or strong according to its nature. Sankalia says that the migration or diffusion occurred from succeeding generations like from Stone Age to Neolithic, Chalcolithic etc. He says that the movement occurred even in historical time. According to him, always the group who migrated was probably small, so after reaching they mixed with the original inhabitants and both of the groups make certain adaptations with each other. He agreed with the archaeologists and says that we can see the influence of these migrants in the form of varieties of stone and other metal tools, pottery, beads, forms of disposal etc.⁴⁹

Megalithic culture is considered as representing the history approximately from 3rd century B.C to 3rd century A.D of South India. Monuments of Kerala

⁴⁸ Karthigesu Sivathamby, *Studies in ancient Tamil society*, Madras, 1998, p.26.

⁴⁹ H.D. Sankalia, “Pre-Historic Colonization in India” in *WA*, vol.5, No.1, June, 1973, pp.86-91.

also considered as came under the time frame of south Indian megaliths. The monuments have got importance due to the wide nature of its distribution. Apart from the typological similarities recent studies have concentrate more on the nature of the material culture of the people who inhabited at that time.

Megaliths of South India and Observations by various scholars

When going through the pioneer works it sees that many of them approach it in various perspectives. L.S.Leshnik in his work, *South Indian megalithic burials* says that the effort to find out the forms of subsistence of the people at that time is necessary for a fresh enquiry into this problem. Dilip Chakrabarthy and Nayanjyot Lahiri viewed that in earlier time some says that the origin of iron is from West but now many of them accept the origin is from various parts of India, which means an indigenous origin. When deals with the issue relating to megaliths and distribution of iron, one going through the technological development and with the socio-religious behavior or acceptance of this.⁵⁰

With the availability of artefacts from excavated sites scholars like Leshnik opined that, most of the tools and weapons recovered indicate the purpose of hunting and home managing. But at the same time we get the tools for agricultural purposes in less quantity. Like that many artifacts which were available from the grave goods are similar with European and other areas. He asks the question that how a pure nomadic community is able to keep a close relation with other parts of the world. So he did not fully agree with the argument that they were nomadic, a kind of semi-settlement may have

⁵⁰ R.K. Mohanty and V. Selvakumar., op cit., pp.327-329.

happened.⁵¹ K.N. Dikshit also propagates the possibility of agriculture expansion in South India at Megalithic period.⁵²

B.K. Gururaja Rao says that the people who inhabited in megalithic culture were the propagators of irrigation in South India.⁵³ Another argument relating to the megalithic period is like this, the evidence of many craft items, tools and potteries, bricks etc. prompted some historians to say that, the megalithic period was a phase of urban development in the history of South India.⁵⁴ But that was not accepted by the scholars who worked in this field. Other than some iron tools, weapons and wheel made potteries no more sources are found to support such an observation. We found the scholars from other parts of South India, especially in the parts of Tamilnadu collect evidence from Tamil classical works along with archaeological evidence for get a more accurate description of this period. It is generally considered that the Sangam poems were contemporary to this burial practices. The five ecological divisions are generally accepted by historians as genuine in the geography of the area particularly in South India. Rajan Gurukkal, Kailaspathi etc. identify Sangam poems with heroic poetry but accept that they provide the reflection of the nature of the people who inhabited in that particular society. Another scholar who worked in the field of Megaliths in Peninsular region says that the grave goods and other

⁵¹ H.D.Sankalia, "Pre-historic colonization in India", in *WA*, Vol.5, June, 1973, pp.85.

⁵² K.N.Dikshit, "Tank irrigation system of the megalithic builders in South India- A reassessment", in *Puratattva*, 34, 2003-2004, pp. 97-98.

⁵³ B.K.Gururaja Rao, *Megalithic culture in South India*, Prasaranga, University of Mysore, 1972, pp.35-58.

⁵⁴ S.H.Ritti (ed), *A Decade of Archaeological Studies in South India*, Dhamur, 1978, pp. 24-48.

R.Champakalakshmi, "Urban process in early medieval Taamilnadu", Delhi, Indian History Congress Proceedings (Here after IHC), 1981, pp. 65-74.

artifacts received from a burial site indicate that the society which existed at that time followed agro-pastoral and hunting activities for their subsistence.⁵⁵

S.B. Deo says that the five ecological divisions may denote the evolution of a society from primitive to the civilized in South India. The poems mention about the mutual interaction with each *Tinai* and paddy as the main medium of transaction at that time. The transaction of paddy with salt was found to be mentioned repeatedly.⁵⁶ The interesting thing is that there found certain fixed points of exchange known as *avanam* or *ankati* where people from far off places came for exchange of their goods with each other.

The overseas exchange of the Tamils and extensive foreign trade with Tamilakam were mentioned in the writings. Most of the people who worked in this field usually accept that argument, because the archaeological data from excavations and literary evidence of *yavanas* also support the existence of long distance trade.

We know that pepper, ginger, cardamom, teak, sandal, precious stones, gems and pearls were the items shipped from the Tamil region. Most of these goods are got from hills and its nearby areas. The luxury goods which reached to Tamilnadu through Mediterranean were ; Roman coins, fine clothing, coral, antimony, wheat, glass, copper, tin, led, ceramics etc. Glass, tin, led may functioned as a raw material for making local beads and bronze items. But who were the consumers of these luxury items is a crucial question. Some have said

⁵⁵ G.K.Lama, "Megalithic culture: A prelude to the subsequent economic growth in peninsular India and the Deccan" in K.N.Dikshit & Ajith Kumar (ed.), *The Megalithic culture of South India*, New Delhi, The Indian Archaeological Society, 2014, p.321.

⁵⁶ S.B.Deo, "The Vidharbha Megaliths" in *BDCRI*, Vol.41, pp.27-32.

that the import of luxury goods indicates the existence of upper class consumers who existed here.⁵⁷

Gurukkal presented another view regarding the existence of long distance trade at that time. He says that it is not necessary that long distance trade is an activity for any clans or households, but it indicates the surplus production, economic specialization, multiplicity of crafts etc. Probably a class of separate traders were inhabited there and involved with trading activities. Gurukkal shared another view along with this; he says that the lack of more evidences which support trade indicates that the local involvement is very little.⁵⁸ All these possibilities need more sources to reach a definite conclusion.

When we intend to check the possibility for the material culture formation of Kerala, it is found that no more solid sources are received yet which may indicate anything about the means of subsistence by the people who practiced burial culture at that time. The existing works about megalithic or Iron Age is fully based on archaeological sources like burial types and nature of grave goods. The Tamil classical texts like *purananuru*, *akananuru*, *patittupattu* and its related songs mentioned about the trade, traders and trade goods. The literary references support the chance for certain kind of relation with other parts of the world. That may help us to relate with the evidences of Archaeology.

So from these available artifacts and other goods we can understand the responses of the earlier people to the world which they lived. Because some say that the stages like hunting, gathering, agro-pastoralism, craft production, exchange

⁵⁷ R.Champakalkshmi, “Archaeology and Tamil literary tradition”, in *Puratattva*, No.8, pp.110-122.

⁵⁸ Rajan Gurukkal., *Social formations of South India*, New Delhi,Oxford, 2010, pp.23-37, 90-110.

economies etc. made social formation possible. The society may have witnessed a kind of mutual contacts with other parts of the world from that period itself.

Discussions on the Problem

The problems relating with the megalithic practice have resulted in various kinds of discussions and views. Another view found to be get the acceptance from the people who worked in this field is that, may be in primitive time the hills and its isolated geographical nature may have prevented the spread of settlement in to Kerala. Also the use of iron tools and implements may help to begin the settlement in here. Like any other part of South India here also the role played by the physical environment to mould the life of human beings is notable. It is found that both the hills and rivers may have attracted the attention of megalithic builders.

In the case of Kerala and South India we found that most of the monuments were distributed on the slopes of the hills or nearby sites of rivers. R.Champakalakshmi also mentioned about the spices like cardamom and pepper which are found plenty in the western hills of Kerala.

R.Champakalakshmi and others say that river valleys get settled at first. But she says the hill tracts also are rich with their mineral resources and in early historical times. The Kongu region is rich with mineral resources and then an area that connects the West coast to the eastern plains and coast via Palakkad pass was discovered.⁵⁹ T.V.Mahalingam in his work, *Early south Indian Paleography* says that the Chera kingdom is on the western side of the Ghats and Kongu is on eastern side and mentions the intervention of men in hilly areas

⁵⁹ R.Champakalakshmi, *Trade, Ideology and Urbanization*, New Delhi, OUP, 1996 (2010), pp.26-27.

for various purposes.⁶⁰ Champakalakshmi quotes the work of Rajan Gurukkal and says that from early historic period evidence of specialist craftsmen groups like metal workers, weavers and salt manufacturing groups have been found. She says that there exists inter-regional and long distance trade.⁶¹ Shereen Ratnagar is of the opinion that geographical position must have a role in forming a region as rich or poor. Foreign records mentioned about the export of hill products to Rome and Greek in earlier period. From these we assume that Kerala had a rich past. One of the article published in *Puratattva* by P. Rajendran argued that from Kerala we get the iron implements which are mostly used for defensive purposes.⁶² R. Champakalakshmi also supports this; she mentions the availability of more iron weapons than agricultural tools from megalithic sites of South India. It may support our notion of the settlement of megalithic people up on hilly areas in earlier time. They conduct hunting and might have needed war for their survival. Later, they began to move into the river valleys.⁶³ In the case of Kerala we have no other sources than megalithic monuments which are relating to the pre and early historic period. In early historic period (at Kerala) we have got plenty of megalithic monuments; but the question, still remained as a serious issue. What was exactly done by these megalithic practitioners? Here we have not much excavation that is conducted in this field. But from the surface explorations and further readings we assume that they practiced the hunting-gathering and agriculture as their way of living.

⁶⁰ T.V.Mahalingam, *Early South Indian Paleography*, Madras, University of Madras, 1967, pp.35-75.

⁶¹ Rajan Gurukkal, op cit., pp.87-89.

⁶² Dr.P.Rajendran, "Neolithic axe from Kerala", in *Puratattva*, 2005, pp.124-35.

⁶³ A. Sreedhara Menon, *A Survey of Kerala History*, Trivandrum, 1967(1976) p.131.

For arriving at a position which is more and more close to the fact regarding the early historical time, there is need to depend on the possibilities of newly developed research areas like Landscape and settlement pattern studies along with the historical outlook. The study by George Erdossy relating to settlement pattern of Ahamadabad, edited by F.R.ALLCHIN and Gordon R.Willey about the settlement patterns of Viru valleys are deals the issue like this.

For understanding the possibilities of the formation of material culture in Bharathapuzha valley we need to check the things like technology, culture, belief, rituals etc. along with the megalithic distribution pattern in that area. Because every society has a material culture, need to trace it through various ways. Francis Buchanan, mentioned Kollengode a site near Palakkad as the iron ore area, he locates four forges with iron ore.⁶⁴ From all these we think a study of material culture of that area may bring new light on that period of time. We like to find out the possibilities of the presence of crafts and trade men groups in that particular area. When studying the settlement pattern, Erdossy says that the invention of iron, which is the strong metal, has making a huge jump in the technological level of human beings. Along with this he says that the availability of precious stones, iron and other rich circumstances may support the settlement of men in every society. But the main problem relating to this kind of studies is the difficult to locate a central place for every action. May be in a settlement that central place is happened gradually, its need a detailed study to find out these kind of evidences. Erdossy quotes Gordon childe and says that the smelting of iron is the prime factor of development in most societies. But the finding of iron technology makes a society as developed is a serious question.

⁶⁴ Francis Buchanan, "A Journey from Madras- Through the Countries of Mysore", *Canara and Malabar Vol.II*, Asian Educational Services, New Delhi, 1988, p.386.

The observations made by Arnold. J. Toynbee and Gordon Childe are interesting. Childe says that people move to riverside due to the awareness of human beings that rivers are more favourable to the easily grown of plants and animals. So man gradually moves to river valleys. He called this view as ‘Oasis Hypothesis’ with this view he meant that change in climate may cause the change in human settlement.⁶⁵ This theory is may be one of the reasons for change in human settlement. Another argument made by Toynbee is interesting but later scholars reject his views. He proposed ‘challenge and response theory’. It meant that every society has faced challenges, only the man with heroic personalities can face its responds. Like that through challenges and responses society has developed and earned a settled life, agriculture etc.⁶⁶

In pre-historic Kerala the monuments with large stone structures mark the presence of human beings here. But no study in sufficient depth has appeared yet. So a study regarding Kerala’s pre-historical background is necessary. The existence and development of a society is purely based up on its material background.⁶⁷ When we check the earlier monuments in general, it is found that the collective distribution of monuments and the occasional dropping of a pottery or iron equipment within the sites or its nearby areas. The availability of iron and pottery equipments from the sites forced us to enquire about the presence of human beings in the nearby areas of the monument. Surface explorations may bring some information to this kind of questions. Megaliths are the most visible

⁶⁵ Ronald L.Wallace, op cit., pp.95-126.

⁶⁶ Arnold Toynbee, *Study of History*, UK, OUP, 1954, pp. 61-72.

⁶⁷ Carnelius J.Holtorf, “The Life Histories of Megaliths in Mecklenberg” in *WA*, vol.30, No.1, 1988, p.28.

monument in Kerala which throw light up on that period. Apart from that no literary sources were available to trace the history at that period. So the scholars who try to analyse the history at that period completely depend on Tamil classical works along with archaeological evidences to make an idea about the pre-historic background of ancient Tamilakam. Tamil sources like *Patittupathu* gave more information regarding Kerala, it deals with Chera rulers. M.G.S. Narayanan says that the Chera capital Vanji is located at Karur in Salem district and others like Elamkulam Kunjan Pillai say that it was on Thiruvancikulam near Kodungallur⁶⁸. From Pukalur near Karur we got Brahmi inscriptions and the appearance of Chera coins also support the political importance of Karur.⁶⁹ T.V. Mahalingam in his work *Early south Indian Paleography* says that Chera kingdom was considered to be Malabar Coast on the Western side of the Ghats and the Kongu country on the eastern side.⁷⁰ The earlier records mentioned Kerala as coming under chiefs. The Northern part of Kerala came under *Eli malai* chiefs.⁷¹ Southern part of Kerala under Ay chiefs and middle portion was under Cheras.⁷² In some books we get reference about the *Muventar* as – Cholas, Pandyas, and Kerala and not Cheras.⁷³

One thing is sure that in ancient time a part of the West Coast was considered as Chera territory. The Tamil work *Tolkapium* gives a list of some

⁶⁸ M.G.S.Narayanan, “The ancient and medieval history of Kerala-Recent developments and the rationale for interdisciplinary approach”, in *Journal of Kerala studies*, Trivandrum, Dept of History , University of Kerala, 1976, p.441 .

⁶⁹ *ibid.*, p.446.

⁷⁰ T.V. Mahalingam, op cit., p.185.

⁷¹ Elamkulam Kunjan Pillai,(mal) *Keralam anjum arum noottandukalil*, Kottayam, SPCS, 1961, p.70.

⁷² Dr. K. Gopalan kutty, *Palakkad Gap* (MA Dissertation), Department of History, University of Calicut, 1974, p.16.

⁷³ K.S. Ramaswamy Sastry, *The Tamils and their Culture*, Annamalai Nagar, Annamalai University, 1967, p.3.

nadus like *Venadu, Kuttanadu, Kudanadu, Puzhinadu, Seethanadu, Karkanadu and Mala nadu*. Along with that some scholars says that *Ainkurunuru* is a work of five Malayalam poets.⁷⁴ From all these we understand that Kerala definitely had a rich pre-historical background.

Apart from this we cannot have more clear and solid sources in this period. So we think a study through the tracing of a pattern of visible sources like megalithic monuments and its surface finds may help our study. We are not sure whether the custom relating to burials was adopted or not. But it is probable that a burial system existed here like other parts of the world. May be the monumental type or structure was adopted from outsiders, that is from other parts of India or the world or at least adapted by them. There is no doubt that they had rich trade contacts with other part of the world. Earlier trade through the sea ports of Kaveripoompattinam (cholas), Korkai (Pandyas) and through Tondi and Muziri (Cheras)are notable.⁷⁵ So a mutual mixture of culture may have happened. Another issue relating to the pre-historic period is about the inhabitants of the area. The Tamil classical songs and latter Sangam works support the movement of people from one place to another. Latter work *Chilapathikaram* also mentioned about the movement of Chera ruler Senguttuvan.⁷⁶

Romila Thapar in *Cultural pasts* mentioned about the memorial stones which are scattered here and there. She says that these stones were built for the memory of heroes who defended their village or cattle. She also says that these memorials usually found in upper lands or in the vicinity of passes across hills

⁷⁴ *ibid.*,p.21.

⁷⁵ *ibid.*,p.15.

⁷⁶ *ibid.*,p.12.

and she opined stones were found on the rich agricultural lands. Thapar again made an observation that when we trace the distribution pattern of the monuments; it is found that almost all stones were located on the boundary of the state or *nadus*. In the frontier zones the protection was safe on the hands of local chiefs. May be the monuments were represent their brave death.⁷⁷ This is the reason said by her.

When we trace the origin and development of megalithic practices in South India, it was found that the roots of the culture were lying on the ritualistic practice of 'Hero-worship'. Evidence regarding this practice is available from Sangam literature and archaeological remains also substantiate these practices. Sangam poems reveal the rise of chieftains, their raids for plunder etc. Such raids resulted in the death of numerous warriors and to show respect towards them, the practice of erecting stones were started. The typological similarities also support the possibility of contact with each other.

TYOLOGICAL VARIETIES IN SOUTH INDIA

South India was the area which enriched with the typological varieties of burial monuments. Comparing with other pre or early historical monuments South India is notable with the wide distribution of megalithic monuments in here. Almost all monuments have certain similarities at the same time it may different according to the geographical areas of that particular area.⁷⁸ U.S. Moorti was an eminent figure who makes two categorization of burial types according to the typology of the monument, namely, Sepulchral (pit, chamber and legged and

⁷⁷ Romila Thapar, *Cultural pasts –Essays in early Indian history*, New Delhi, OUP, 2000 (2010), p.690.

⁷⁸ V.D. Krishnaswamy, "Megalithic Types of South India", *AI*, vol. 5, pp. 35-47.

unlegged burials), Non sepulchral (commemorative or memorial types)⁷⁹. The types like *kudakkal*, *toppikkal*, are found exclusively in some parts of Kerala. These two types of monuments and Dolmens were sometimes found without any burial objects, which sometimes denote a kind of symbolic representation of death⁸⁰. Many anthropomorphic figures were seen in some parts of South India, but in Kerala we have no such monuments. Megalithic monuments of Tamil nadu have attracted the attention of many scholars and archaeologists. Many excavations were carried out there, but still not in a position to reach a single opinion regarding the time of this practices and continue the battle regarding its authorship, origin etc. The contribution made by V.D. Krishnaswami is notable in the case of typological varieties of the monuments in South India. He divides the types under three titles, one in Chingleput type, Pudukottai type and Cochin. The type find in Cochin he listed in detail as,

- Multiple dolmens
- Port-hole cist
- Menhirs
- Umbrella stones
- Hood stones
- Multiple hood stones
- Rock cut caves

These are the general typology found in Kerala. For making a comparison typology seen in Tamilnadu can be listed. Krishna Swami says that similarities

⁷⁹ U.S. Moorthi, op cit., pp.78-95.

⁸⁰ John. K.J., “New light on the Kodakkals of Malabar”, in R.K.Sharma, (ed.), *Indian Archaeology: New perspectives*, Akamkala, New Delhi, pp. 145-157.

were visible not only in the case of types of the monuments but also the grave goods also have similar features. So he says that a kind of relation was existed between these monuments beyond its chronological differences.⁸¹

Types of Monuments - Tamilnadu

- a) Cist with passage
- b) Dolmenoid cist
- c) Sarcophagus
- d) Menhir
- e) Stone-circle
- f) Cairn circle
- g) Urn-burials

Almost all these types are found in various parts of South India. The megaliths of Tamilnadu are believed to be latter than the monuments of Andhra pradesh and Karnataka. If it is true there is a chance for the gradual movement or migration of the people who practiced this burial culture in to other parts of Tamilnadu and Kerala, that was may be happened through trade or various cultural contacts.

One thing is sure that some kind of contact existed between these areas. It should be noticed that Cist with passage, has been found in Kollegal Taluk of Mysore which is adjacent to the district Coimbatore. The Tamilnadu region is bound by Chittoor district of Andhrapradesh, Kolar district of Karnataka in the north and Banglore and Mysore districts of Karnataka in the west. So contact with each other could have been a possible one.

⁸¹ V.D. Krishnaswami, op cit., pp. 36-43.

If the monuments of Tamilnadu and Kerala are much later than other areas of South India, it is possible that these types of monuments developed from other areas and then they came into borders and subsequently entered in to Tamilnadu. This could have happened due to the mutual contact among these areas or due to some external agencies or due to both. The discovery of Roman coins and the references found in Sangam literature like *yavanas* also support the chance for an external agency to spread this practice.

When comparing with the number of excavation sites with Tamilnadu and Kerala, here the case was very pathetic. No huge numbers of excavations were undertaken in Kerala by concerned agencies. Unlike here in Tamilnadu find so many sites and get a huge list of the distribution of monuments in various parts of Tamilnadu. But for the convenience of the study we concentrate more to the area called 'Kongu nadu' in Tamilnadu, for a relational study which covers the present Districts of Coimbatore, Salem, Pollachi and parts of Palani hills etc. These regions are lying more close to Palakkad Ghats's area. Chittoor area of Palakkad is also considered as the part of old 'Kongu nadu' area. We concentrate here, because our study emphasis on the material cultural formation of Bharathapuzha basin. The river begins from the Anamalai hills of Tamilnadu and it covers the districts Coimbatore in Tamilnadu and parts of Palakkad, Thrissur , Malappuram districts of Kerala. Sangam poems mentioned 'Anamalai' as 'Nandanur Anamalai'. The scholars who work in this area also locate huge number of monuments on here; most of them are in hilly regions. Amaravathi, one of the tributaries of River Kaveri, which runs through the route of Pollachi-Palani area, is also notable for its megalithic varieties.⁸² The important burial cum habitation site

⁸² S.B.Darsana., op cit., PP.64-78.

of Tamilnadu like, Kodumanal and other site called Karur also lies near to Amaravathi valley. The types of monuments found here are similar to those within our area of study.

We have already mentioned that very few archaeological excavations have been done in Kerala. Contradictory to this, other parts of South India have conducted very serious studies in this field. So we are forced to depend on the information from there to make a successful comparative study about these monuments. These monuments are noticeable ones, because the materials (cutting stones) used to make them and the grave goods available from the monuments provide information regarding the people who lived here.⁸³ In Tamilnadu we find large distribution of various types of megalithic monuments collectively. Most of the sites are excavated scientifically and records are kept in safe and available to public for research purposes. Unlike Tamilnadu, except for Pattanam, we do not get the remains of habitation from Kerala. From the reported sites, only six or seven has been excavated, which include Punnol near Mahi, Machad, Pazhayannur⁸⁴, Porkkalam and areas near Kodungallur in Thrissur district, Kuppakolly in Wayanad and Mangadu of Kollam district etc.⁸⁵ So we have to depend on the reports from other parts of Kerala for a study in this field.

In the case of monuments on the Bharathappuzha basin, we notice that monuments are concentrated more on the hilly areas near to this river. In the field works at our area called Gayathripuzha we found that megalithic

⁸³ K.J.John, "The Megalithic Culture of Kerala", in *South Indian History Congress procedure, (Here after SIHC)*, University of Calicut, 1991, pp.69-86

⁸⁴ R.N. Mehta and K.M. George, *Megaliths in Machad and Pazhayannur, Thalappilly Thaluk, Thrissur, Kerala*, Baroda, M.S. University, 1978, pp. 15-26.

⁸⁵ T. Sathyamurthy, *The Iron age in Kerala-a report on Mangad Excavation*, Dept. of Archaeology, Trivandrum, Government of Kerala, 1992, PP.4-18.

monuments like dolmens are distributed both on the tops of hills or on the slopes and gradually found the monuments were shifted to riversides and the nature of monuments also began to change. The types like Dolmens, Dolmenoid cists with or without stone circles are found largely concentrate on the area which is closer to Western Ghats. The types like *kudakkallu* (Umrella stone), *toppikkallu* (Cap stone) etc. are found largely on the mid land area. The types like Urn-burials were found distributed more on the river valleys. Same is the case of Adichanellur, the famous river valley site in Tamilnadu, also notable for the distribution of huge number of urn-burials.

May be the typology of the monuments are depended on the materials available on that area. The regional variations, beliefs, faith etc. may reflect on the monumental typology. H.D. Sankalia support the notion of a cultural contact happened in early period through the movement of people from one to other region. He called such kind of movements and settlements as ‘pre-historical colonization’.⁸⁶ We are not sure, whether this kind of colonization could have happened here or not. But in the area called ‘Ancient Tamilakam’, they were basically cattle raiders and small scale agriculturists (slash and burn cultivation) so the chance for the movement from one area to other exists. This is a point that we will further examine on the basis of the available evidence.

Literary Evidence of Burial Practice

Many of the scholars argued that the history of human beings begins from the river valleys, which means that with the introduction of wet cultivation the human history begins. But before that in Sangam literature we find so many

⁸⁶ H.D. Sankalia, op cit., pp. 90-94.

references regarding the practice of large scale cultivation of various cereals up on the hilly areas. Like that the availability of precious and semi-precious stones, iron ores etc. support the existence of the people in dry zone area and like that the coastal people might have depended on the pearl, coral, fish and salt for their living along with the small scale cultivation. The Sangam literature also mentioned the coastal area as *Neithal* and mentioned that the people from here, went to the hilly regions and sold the items like salt and fish which is plenty in there. So the beginning of human history from the river valleys and wet land cultivation at least in Kerala requires further enquiry. *Nadukal* is the term found to be used regularly in Sangam literature for planting the memory of a person who died during the cattle raids. Among the burial monuments the purpose of '*nadukal*' was a little confusing. Because sometimes mentioned the purpose of monuments as for burial and at the same time it was erected as the 'symbol of victory'. Like that found so many references about the burial practice which prevailed in that time.

Sangam literature is considered as contemporary to the megalithic monuments of South India. 'Sangam literature' includes the collections of anthologies by different poets and two epics like *Manimekhalai* and *Silappathikaram*. The last two works generally considered as belong to the close of the period of Sangam or to a period slightly later. The accepted date of Sangam literature is 3rd century B.C and the 3rd century A.D.⁸⁷ However, some of the texts, especially the *Patinenkil kanakku* were considered to be composed at a later date. Among Sangam anthologies, *Akanaamuru* has many references about

⁸⁷ K.R. Srinivasan, "The Megalithic Burials and Urn-fields of South India in the Light of Tamil Literature and Tradition", in *AI*, No.2, New Delhi, (1946), p.10.

the day today life of the common people at that time. It mainly refers to five eco-zones or *Tinai*s like *Kurinji*, *Mullai*, *Palai*, *Marutham* and *Neithal*. Among these '*Palai* songs' provided more information regarding the burial practices of that time. *Puranaanuru* also contains a number of songs that depict burial practices.

Before going to the details of Sangam literature it needs to look at the references found in other literary sources about the burial practices. Some have argued that burial practices were described even in the Vedic texts also. Persons who dealing with Vedic literature says that *Rigveda* and *Atharvaveda* indicates the prevalence of both burial and cremation among the vedic aryan. *Vajasaneyi Samhita*, the ritual texts like *Katyayana-srauta-sutra*, *Taitiriya Aranyaka* mention cremation. The Buddhist texts also provide information about post-cremation practices. For example, the text *Mahaparinibhava Suttanta* mentioned about the death ceremony of Buddha as like this, the dead body of Buddha was first burned and then its relics were buried. *Satapatha brahmana* also referred to burial practices. At least one of the verses of the *Atharvaveda Samhita* refers to the ceremony regarding death, dead body, post-cremation etc.⁸⁸

The evidence regarding these practices was found in later period also. The Pandya inscriptions of the 13th century refer to burial grounds as 'strewn with large stones and containing *Kuruakkuppada*i'. Later the term *kurangupattadai* was used. This shows the long lasting existence of these practices, the period from 3rd century B.C to 12th century A.D. and some have argued about the existence of this practice in still at some parts of Eastern India. The references like *Mudumakkatāli* for urn which is used for burying the ancestors were seen. The stone circles are

⁸⁸ Haripada Chakrabarti, "Disposal of the Dead in Ancient India", in *IHC*, 29th Session, Pattiala, 1967, p.60.

called '*karkidai*' in a Tanjore inscription. From these it is clear that the use of the monuments with same purpose was existed from 3rd century B.C. to 12th century A.D. Tamil sources referred to urn-burials as '*Mudumakkat-Chādi*' or '*immayattali*' or '*tali*' etc.⁸⁹

Many literary references have corresponded with archaeological evidence. The effort to correlate archaeological evidences with literature throws new light into the existence of this burial practices and its related rituals etc. Along with the references of burial monuments we get information regarding the then geographic, cultural and political spaces of that period also.

In Sangam literature so many references are found about the day to day life of the people at that time. It may help us to make an overall picture to the social life of the human beings at that time. In Sangam literature, we find certain indications about the existence of division of labour, the emergence of chiefs etc. The role of five ecozones is found as important in the actions of human beings. These ecozones offered various resources for people and whatever was not locally available were obtained through exchange between these geographical units⁹⁰. Sangam texts also provide evidences for habitations such as *Kuti*, *ill* and *manai*. Burials are also referred to as proximate to the habitation. This indicates that the presence of a cluster of burial sites must be the indicator of the presence of a proximate habitation site.⁹¹

The works like *Akanaanuru* (AN) and *Puranaanuru* (PN) mention about '*ur*', (Akam-200, 183, 318, 89). Another poem (Akam poem No.200) mentions a

⁸⁹ K.R. Srinivasan, op cit., pp.9-10.

⁹⁰ S.B. Darsana, op cit., p.100.

⁹¹ K.N. Ganesh, "Lived Spaces in History: A study in Human geography in the context of Sangam texts", in *Studies in History*, New Delhi, Sage Publication, 2009, p.192.

house with thatched roof in Neithal area. Yet another poem (Akam-289) also referred to a mud plastered wall, for this they used the term as '*thinncuvar*'.⁹²

'*Puranaanuru* which deals with war and external affairs of chiefs also give information regarding habitations on that area. Poem No.86 in *Puranaanuru* used a word '*cirrinatun patti*' the translator says it meant 'Pillar of small house'. *Puranaanuru*-120 has a line that reads as '*Kurumbai Kudithorum Pakarntu*' - in this '*kudi*' means residence. *Puranaanuru* - 58 mentions about neighbouring people with '*Ethin Makkal*'. *Puranaanuru* also mentioned the *kutis* of Idayar, Maravar, etc. P.N 183 refers to '*oru kuti pirantha palloram*', which may be an indication of kinship group. In P.N.s75, poet sang '*Mūthor Mūthor Kootta Maythenapu*, which indicates the genealogical order of a family. '*Palvey Kurumbai*' (P.N.129) *Kuriyirai Kurumbai* (Small houses of Kunaver) meant small hut, and also P.N.324 mentions about the huts which surrounding paddy fields as *venkal thaya vankar panthar*.⁹³ Such references also indicate construction activity using grass, wood, mud and stone during that period.

Akanaanuru deals with love and passion between the human beings and also mention living spaces of that period. AN. 315 also mentioned 'huts' as *puthalpol karumbai* and the same poem again mentions about small huts at the centre of the forest. AN 369 has one reference to a thatched roof and a cow which tied on the pillar of that hut. These are the some references which indicate the living spaces of the people. From this we can assume that the mud brick structure and clay flooring with post holes or pillars to carry thatched roof

⁹² Nenmara.P. Viswanathan Nair, *Akanaanuru (Mal.)*,(Here after AN) Thrissur, Kerala Sahitya Academy, 1983, pp.2 -28, 276, 503.

⁹³ V.R. Parameswaran Pillai,(mal), *Purunanuru*, (Here after PN), Thrissur, Kerala Sahitya Academy, (F. Pub. 1969), 1997- pp.62-330 .

formed the probable pattern of the houses of common folk.⁹⁴ In Sangam literature the exchange has needed special references. Because, trade, labour, cattle raids etc believed to be leading to a kind of migration from one place to another. The exchange of things from precious jewels to salt and flowers were mentioned in Sangam literature. Through these exchanges we can get the picture of various geographical situations.

Some scholars considered that the divisions of five *Tinai*s in ancient Tamilakam indicate the movement of Tamil people in to different areas and also about the progressive change of human beings through various stages.⁹⁵ S.B. Darsana in her article says that the literary sources were not a heroic representation only, at the same time they deal with the activities of common people and their engagements with nature and its landscape etc.⁹⁶

Sangam works refers all foreign traders as *yavanas* and considered *yavana* bring gold and wine to Tamilakam. Scholars argued that, most probably the Romans, import gold and wine in to India.⁹⁷ Reference of young girls who serving liquor to the chiefs are found in *Puranaanuru* (PN.56). Apart from this *Akanaanuru* mentioned that the *yavanas* came with a full ship of gold and returned with pepper from Muziris. Coins, glass, bronze, copper, tin, led, liquor etc are the main imported items.⁹⁸

⁹⁴ K.V. Raman, op cit., p.52.

⁹⁵ T.H.P. Chentharasseri, *Kerala Chrithrathile Avaganikapetta Edukal (Mal.)*, Trivandrum, Prabhath Book House, 1970, p.48.

⁹⁶ S.B. Darsana, "Megaliths in the Upper Palar Basin, Tamilnadu- New Perspective", in *MAE*, Vol. 23, 1998, p.53.

⁹⁷ S. Suresh, *Symbols of trade - Roman and Pseudo Roman objects found in India*, New Delhi, Manohar Publishers, 2004, p.23.

⁹⁸ Dr. N. Sam (Ed.), *Elamkulam Kunjan Pillayude Thiranjedutha Krithikal, Part I (Mal.)*, International Centre for Kerala Studies, Trivandrum, University of Kerala, 2005, pp.16-19.

Patittupathu, also gives information regarding this. The Xth song of 'third decade' mentioned the people who become rich through goods to goods transactions. Like that, the IInd song of 'sixth decade', mentioned the ships who collected precious and costly goods from foreigners and the Vth song of 'sixth decade', also mentioned about the ships which coming through the seas which carrying golds, jewels etc. The *Pathika'* of sixth decade also referred about *pon kasu*. (Gold coin).⁹⁹

Akanaanuru, also mentioned about some trading centres which existed in ancient Tamilakam. (AN 390-'ceri' - they referred it as the exchange centers of salt and paddy. AN 93-mentioned *Nal ankad* a separate area used for the purpose of exchange. AN.207- mentioned about the use of donkey for carrying salt, the term is *Narappura Kazhuthai*. AN 390 - mentioned about the sellers who sold rice and salt through the *ceris*. (*Nellumu uppumu ner kolliro enna ceri thorum nuvalum*). AN. 149 also mentioned regarding *yavanas*, as (*Yavanar thantha vinai man nalkalam*).¹⁰⁰

Puranaanuru also mentioned more about these kinds of exchanges. PN 386- also mentions about the movement of ships based up on the change in wind (*Kadale karantha Kalanennuvor*). PN.313 also mentioned about salt traders though the road (*Uppoi chakattuman*) PN.126 mentioned that the Chera rulers earned huge money through the trade at sea etc. PN.343 mentioned 'Muziris as rich trading centre'.¹⁰¹ Apart from these some references are found regarding the

⁹⁹ G. Viadyanath Iyer, op cit., pp.69, 129, 137, 146.

¹⁰⁰ Nenmara.P.Viswanathan Nair, op cit., pp.120, 294, 251.

¹⁰¹ V.R. Parameswaran Pillai, op cit., pp.176, 411-445.

migration of people from one place to other for earning money and for cattle raids at various places etc. The references regarding the migration of people to different areas gave a clear picture about the geography at that time. It is possible that the migration of people from place to place in search of more cultivable and pasture land was due to the increase of population and this also resulted the growth of settlement to new areas.

Akanaanuru 141 gave some clues regarding the migration to distant places by the hero and picturing the strain of heroine due to separation with her man. This theme was continuously depicted in *Akanaanuru*. AN.197 also mentioned about the migration of people to other areas for earning their livelihood. AN 227, AN 173 etc mentioned the migration of heroes for earnings. Almost all movements are passed through the hills, mountains and Ghats. AN. 113 named some tools which were used for killing and looting of travellers at *Palai* region. AN. 179 clearly indicates the westward movement of people from Tamilnadu and crossing the Ghats, because the poem mentioned about the sunset on hills. The persons who moving from East to West, he is seeing the Sun sets in the hills of Western Ghats. AN 167 described the migration of people due to the destruction happened on their living area, as *urezhu nthalariya Pirezhu*. AN 165 also presents the migration.

In some poems found the references of heroes who went through the narrow ways and mentioned about the land, which speaks the language is different from theirs. AN 205, 212, 215 etc. mentioned about the land which speech different languages.¹⁰² From the above references, we can understand

¹⁰² Nenmara.P.Viswanathan Nair, op cit., pp.289-317.

that they were not leading a pure nomadic life. Sangam poems, clearly say that they celebrated the victory (victory over cattle raids) through dancing and collective feasting. Literature refers to the existence of various craft groups like iron smiths, black smiths, bead makers, gold smiths etc. This indicates most probably that the megalithic society utilized the services provided by various crafts men for consumption in this world or for other world.¹⁰³ From the burial goods one thing is sure that they were used this tools and weapons, potteries etc. in their life or at least for the ritual purposes after the death.

The practice of cremation and burials are depended upon the ritual and cultural background of that society. The placing of *nadukals* for those who died while protecting their cattle also was an indication of the cultural elements in that time. The culture of an area and their beliefs are inter-related. The references about urns, cremation, pit burials etc. are finding in the poems. Along with the technological support needs more labour force to make the urns, chamber tombs, pit burials etc. All these indicate the possibility of a collective effort and social cohesion at that period.

Some poems in *Akanaanuru* denote the beliefs in life after death of the fighters. Example AN 77 *Uyirthiram peyara nallamar Kadantha tharuka nalar....'* Some of the festivals and feasts are found to be celebrated in Ur. AN 17, 70, 353 etc. mentioned feasts, celebrations, sounds of some musical instruments from various *Ur* (village). *Kuravaikoothu* practiced by ladies was a notable form.¹⁰⁴

¹⁰³ S.B. Darsana, op cit., p. 100.

¹⁰⁴ Nenmara.P. Viswanathan Nair., op cit., pp. 79, 153,278.

The worshipping of heroes or imply any divine power up on the persons who died during a war or any other brave activities was found to be existed from very earlier period onwards. The early memorial stones were raised in the memory of the dead heroes; it was a part of the then culture. But its wide distribution in later years leads us to the notion that the purpose was changed.¹⁰⁵ From Tamil anthologies we understand that the brave men who fell in battle acquired highest honour and this led to the erection of hero stones or *Veerakals*.

Apart from these, we find the texts mentioning goddesses like *Kottavai* (hero). A reference in PN335, indicates that hero stones were the only gods to be worshipped. The translation of poem No.335 says that there were no other communities apart from *panan, parayan, thudiyar and kadumban* and also says that they cannot worship any god other than *Nadukals*.¹⁰⁶ PN 229 mentions that if heroes' body fell to the arrows he went to the world of 'rare individuals'. It is clearly indicated about the beliefs in life after death was existed at that time.¹⁰⁷

Shortly, the material livelihood patterns of a society gave rise to the cultural practices that they followed, for which ample evidence is provided by the Sangam texts. The case of Kerala or South India was not different.

¹⁰⁵ K. Rajan, "Territorial division as gleaned from memorial stones", in *East and West Vol. 51*, 2001 December, p.359.

¹⁰⁶ M.G.S. Narayanan, "*The Role of Peasants in the Early History of Tamilakam in South India*", in *Social Scientist* Vol.16, No.9, 1988 September, p.22.

¹⁰⁷ V. Selvakumar, op cit., p.9.

Various modes of burials in literature

Puranaanuru gave a lot of references regarding different modes of burials exist in that time. PN. 239 *Idukavanro Chudukavanro paduvazhi paduka* - this song describe that the local chief under Pandya ruler was died unexpectedly, then the bard sung that his body is cremated or buried?

Like that, PN 256 mentions a word *pozhil-i-thazhi*. Here the heroine or widow asked the potter to make a huge urn or pot which was as big as to carry her also. PN 314; PN 261, PN 264, 329, 362 etc. mentions '*Nadukal*' and '*Nadukaru*'. PN 231 mentions the cremation of *Anci*. The reference about '*thazhi*' was found repeatedly in *Puranaanuru*, PN 228 *Nananthalai Muthurkalanjai Kove*. in this mentioned that, to covered the body of *Killivalavan* (the chief) with a huge urn. The '*Kalanchai Kove*' here means - 'the potter'. PN 245, also mentioned about the cremation of one chief. PN 247. *Perunkad nokeeth* here mentioned about funeral ground. PN 286 - *Kal kazhi Katilir Kidappithu*, which meant the 'bier'.

PN 364 mentions '*Thazhiya Perukateythiya njanre*'.¹⁰⁸ Akanaanuru, also mentioned regarding various burial practices: AN 343 - mentioned about '*Nadukal*' AN 129 – used the term *Tazhi* for burying the dead.

AN 297, 387 refers (*Nirai nilai nadukaru*), AN 211 mentioned (*Nattiya Kalkezhu Pantithurai*) which means the erection of *nadukals* as a symbol of victory.

¹⁰⁸ V.R. Parameswaran Pillai, op cit., pp.470.

AN 289 - mentioned about '*Nedunilai nadukal*' and about '*Pathukai*' and also found '*Vam palar Uyarpathukaivartha thatharkodi*' it was may be an indication of 'cairns'. AN 365 mentioned that an elephant brokened a *nadukal*. '*Kallam chuntram*' was another reference for cairn.

Another interesting thing is Akanaanuru mentioned about the '*nadukal*' with writings:-

AN 343-refers '*Kar uli Kuyinta Kodumai ezhuthavu*' AN 53 - '*Ezhuthudai nadukal*' AN 167 - '*Ezhuthu ani Katavul*' .¹⁰⁹ PN. 223- says '*Nadukal Peeli Sutti*'. These show painting and decoration of *nadukals*, indicating that they were probably worshipped.

Another notable references found in Sangam anthologies are about the *kadu*. But scholars have different views regarding the meaning of this term. But, from Sangam epoch we get clear indication of the difference between *kadu* and *nadu*. AN 357 mentioned about *perumkadu*. Some argued that it, means 'big forest' and others argued it was 'land for dead'. PN 359 also mentioned about '*nadu*' and '*kadu*' and also referring about the peculiarities of *kadu* as with some animals and the sounds of owls etc. PN 356 refers to *iImmanchu pattu muthukadu*'.

Another thing found to be related with the burials is grave goods. We received beads, bowls, pots, grains, iron pieces etc from these burials. The making of these kinds of weapons and potteries indicates the technological development of that period. But the anthologies gave evidences about the existence of various craftsmen in that time.

¹⁰⁹ Nenmara P. Viswanathan Nair, op cit., pp. 176.

Metals

PN 316 mentioned iron sole and PN 312 says it was the duty of the smith to make a *ves'* for war. That line is like this, '*velvadithu koduthal kollar kukkudane ..*' AN 258, mentioned about 'ponnu' we are not sure whether it is gold or other metal. AN 399, and AN 21 mentioned about a tool called '*Kanichi*' which used for cutting hard things like stone. AN 113 mentions about the tools used for killing travellers at *Palai* zone. Interestingly we get some references regarding furnaces of smiths. AN 202 mentioned about smoke which goes out from smith's furnace (*Ulai*).PN 202 says- *Kollan mithikuruk Uthu Ulai pithirvin pongi* for mentioning furnace.PN 42, 23 etc. also mentioned about '*Kanichi*' to use cutting woods in the forest. AN 74 mentioned *Kodunkol* - that was used by the cowboys. It was may be an iron rod.

Jewels and Beads

The importing of various jewels through ships is mentioned in Tamil anthologies. In *Neithal* zone found mentioning about these kinds of beads as *Muthu*.

There also come references regarding the jewels and dresses get from hills in PN 377 *Malai payantha maniyum, Kadaru payantha ponnum kadal poyantha kathir muthims*. Most probably it was an indication of trade contacts or the things brought by a wealthy man through his migration.

PN 218 refers to *Ponnuthukiru muthu minniya.... Kamaru-maniyum'* -It means the chains made with beads and pearls. Again PN 353 also mentioned about the ornaments made by the smith with the beads of *ponnu*. We are not

sure whether the term *ponnus* meant gold but from the available evidences it is difficult to accept this as gold, not received as much remains of ornaments made with gold. We get remains of gold very rarely from the sites, with the exception of roman gold coins. May be they used this word for mentioning any other metal whether it is precious or semi-precious.

However, AN 173 mentions *Ponpadu marunkin malaiyiranthore* - Here they used this to denote the migration of hero to a 'wealthy area' for earnings, which may indicate the presence of gold also. So the real meaning of the term needs to be checked. It is clear that the use of metals was related to wealth.

'*Mani*' is another term used, that has led to confused interpretations. '*Konkar padumani*' (AN 79), '*Konkar mani*' (AN 368), '*Chudar mani*' (AN 69) etc are found. Generally accept this are the - the 'bell' or 'bead' which tied in the neck of cow. Obviously this 'bell' also made with one metal. The cows with '*Kodumani*' (AN 191) are found to be mentioned. AN 73 mentioned about the chain with beads were used by the heroine. AN 217 also says about pearl.

AN 201- Referred to the brightened beads available from '*korkai nagaram*'.

In AN 290 the eyes of the heroine have been compared with the blue jewels available from *Tondi Pattanam*. In all these cases the term '*mani*' appears to refer to beads. In *Pattittupathu* (fourth decade - 9th song) mentioned about the lady who were bright and beautiful beads on her neck.

Pottery

References about pots, *Tazhi* etc. have got more reference. The potteries were found to be related with their day to day life. AN 129 refer the term *tazhi*

for mentioning a pot. Again pottery used for cooking are mentioned in some songs. PN 384 mentions about the pottery of *Uzhavar*. Many references are found about bowls:-

PN 120 refers - *Perunthodalum poochan mevara*. PN 115- *Panar mandai niraye peymar*. PN 103 *Kavintha mandai*. From this we know they were familiar with these things in their day today life.

So pots have found one common thing in that society. PN 32 - *Terkal Vaitta Pachamankaru*, it was the clear indication of potter's wheel.

References about agriculture were found in Sangam literature. We think that megalithic people were practiced agriculture. Here also found some references regarding slash and burn, cotton cultivation, paddy fields, ploughed land etc.

AN 288 - mentions slash and burn cultivation. AN 179 mentions the fire on forest to clean there. AN 375 also mentioning agriculture. AN 284 - '*Tinaikal Unda therikol maravar*' - the *tinai* cultivation existed there.

PN 120 - mentions about the 'ploughing'. '*poozhi mayanka pal uzhuthu*'

PN 159 - referred about the land which was burn completely. PN 230 - Referred about the sowing seed.

PN 393 mentioned about cotton cultivation. PN 324 & 326 also mentioned about cotton and PN 326 pictured a lady who spins the thread in the light etc. PN 395 - says about farmers '*men pulathu vayaluzhavar*'. These references make our assumption of the existence of agricultural practice is very strong.

The above references indicate that apart from the practice of agriculture and exchange, the Sangam texts provide interesting information about artisan groups like potters, masons, blacksmiths, goldsmiths and their craft. The information leads to the possibility that such groups were brought and settled near the main settlement. Such references also indicate movements of craft groups and labourers, besides merchants and heroic warriors. Such references provide interesting indications regarding our interpretation of archaeological evidence.

Co-relation of archaeo-literary evidences

K.Rajan who worked in this field is made certain observations which are found more feasible. He says that it is generally stated that the fertile zones play a crucial role than dry zones. But in early period we find things that contradict this view; most of the dry zones were enriched with the distribution of hill products and semi-precious stones. Like that the dry Coimbatore zone earned its dominance up on wet areas on early historic period.¹¹⁰ The importance of hill products like Cardamom and others in the trade with other areas is notable in that period.¹¹¹ Sangam poems also mention the movement of people for earning livelihood. Similarly from these anthologies we get strong evidence regarding the earlier settlement of people up on the hills and that later they moved to wet land areas.¹¹² The presence of trade groups from other parts of South India collectively on the basin of Bharathapuzha also support the possibilities for a

¹¹⁰ K. Rajan, "Situating the beginning of early historic times in Tamilnadu: Some issues and reflections", in *Social scientist*, vol-36, 2008, pp.43-49.

¹¹¹ K. Rajan, et al., *Catalogue of Archaeological sites in Tamilnadu Vol.1*, 2009, p.54-58.

¹¹² Dr.V. Selvakumar, op cit., pp. 46-58.

movement of people in to here for various purposes.(ie, large scale settlements of Tamil, Telugu traders will be found on the river valleys of Bharathapuzha).¹¹³

All these references mentioned about the possibility of mutual interactions and contacts. But origins of this culture still exist as serious matter for debate, the monuments have maintained similarity with other parts of the world, not only in the case of typology, but in grave goods also. The grave goods were seen as same in almost all monuments, the types of iron tools, pottery types and things made with other metals indicates that they acquired a kind of technological advancement comparable to other regions. The presence of Iron slags and the remains of broken furnaces, remains of precious and semi-precious stone industries etc. support the possibility of a technological advancement in that period. The monuments which locate from here have made certain kind of similarities with the types seen in Arabia and other Gulf countries. Especially the port holes up on those monuments are notable one, similarities were seen not only in the typology but the grave goods also have same characters. Generally considered the period of monuments in Arabia as about 1500 BC but in India it cannot be earlier than 1000 BC. From the available sources K.M. Srivasthava made a list of places and megalithic monuments in India which can be distributed. He says that Stone circles with Cairns in Karnataka, Rock-cut chambers and Cists in Kerala, Dolmens in Andhra Pradesh and Karnataka, Menhirs have found in Kashmir were so distributed. From the available evidence we can conclude that the earliest builders of megalithic tombs in South India were from Karnataka.¹¹⁴ So the movement to Kerala may happened in the later period.

¹¹³ In field work I met so many crafts men groups and traders who settled here from so many years back.

¹¹⁴ K.M.Srivasthava, *New Horizons of Indian Archaeology*, New Delhi Books and Books publishers, 1988, pp.154-158.

From all these indications we can understand that the opinion made by Allchin is reasonable one. He opined that an indigenous and influence from outside might have happened. Because it is found to be placed like a chain, so a clear cut view regarding the centre of its origin becomes difficult to be discerned.¹¹⁵

Another issue relating to megaliths in Kerala is the *absence of habitation sites* when comparing with the number of burial monuments. Except some indications from Pattanam site, other remains are completely absent in Kerala. But in Tamilnadu and other parts of South India we get the remains of habitation from some locations. Most of the archaeologists considered that the people who practiced burial were a 'nomadic community'. In Kerala except Pattanam we cannot receive any brick structure. At the same time from other parts of South India like Kodumanal, Aricamedu, the archaeologists received the remains of brick structures. The post holes in Kerala denote the wooden construction, but this conjecture awaits for further discussion. But from the parts of Maharashtra, Karnataka, Andhrapradesh and Tamilnadu get the indication of circular and rectangular huts plastered with clay floor. Like that the sickles, hoes, grains and cereals etc support the existence of a well arranged society at that time.¹¹⁶

Like that indications of *agriculture* are available in the form of sickles, hoes etc. From Karnataka and Andhrapradesh we have received remains of rice, ragi etc. From the habitation sites of Maharashtra we get horse gram, grass pea, wheat, barley etc. Some says that the Iron and Black and Red Ware (BRW), help

¹¹⁵ F.R.Allchin, *The Birth of Indian civilization*, Penguin Books, 1968, pp.239-245.

¹¹⁶ K.M.Srivasthava, op cit., pp.157-158.

the spread of agriculture in that period. That means the tools which help to cultivate more area and the visibility of big urns allow the storage of the surplus production at that time. In South India the remains of tools and weapons made with iron metal was plenty available from the sites. At the same time from Vidharbha regions the copper objects also reported. Now with fresh evidences of agriculture and housing (at least in some parts) archaeologists called this people as semi-nomadic.

Pottery is one important grave good which we recover from Megalithic monuments. Black and Red Ware (BRW) is the pottery which we receive from most of the burial monuments of South India. Generally considered the period of BRW with megalithic monuments, but in some parts of South India it reported from Chalcolithic, Megalithic and early historical sites. P. Shanmugam who worked in this area says that in Tamilnadu the BRW was found in all levels, it can understood from the excavations conducted at Arikamedu, Kaveripattanam, Uraiyur, Kodumanal etc. But one interesting thing is the distribution of BRW decreases on upper level when comparing with the lower level of the strata. If we accepting the notion that the BRW pottery is found to be distributed in all periods and almost all parts of South India, some says that the sudden emergence of megaliths in south were happened due to the union of several elements like BRW, Iron etc. and it may draw a new chapter in the history of human beings and it may lead them to settlement life and agriculture¹¹⁷. Red Ware also was reported from many sites of megaliths in South India. Other types of pottery like Rouletted Ware, RCPW etc were not so common in megalithic sites.

¹¹⁷ Dr.P. Shanmugam, "The black and red ware habitations in Tamil country: A study", in *SIHC*, 1988, pp.155-158.

Iron is another important object we can gather from the burial monuments. The cultural association of iron and BRW is crucial one. It is difficult to believe that the production of iron happens accidentally. But the problem is when and where the iron technology is developed and spread to such a wider area. Iron is said to be a byproduct of Copper, lead etc. Smelting of iron need awareness in technology and it need high temperature at least up to 1200 °c¹¹⁸.

The monuments and iron tools indicate that they were at least experts in that technology. Because the structure of the monuments showed that Cists, Dolmens, Rock-cut structures have need a plan and skills. The construction of the monuments showed that the people with diverse skills were to be found at that time.¹¹⁹

Movement of people

Sangam literature is the only source which mentioned about this period. So we are force to accept archaeological data for supporting this notion. Archaeologists categorise the mobility's happened in past under four heads for an easy categorization. That is, sedentary, semi-sedentary, semi-nomadic and nomadic. Sheena Panje, wrote an article with the use of these four divisions. She says that it is very interesting to view the use and reuse of the places by ancient people at that time. She says that sedentary means, the people who settled in a permanent place and semi-sedentary those who live based on a permanent place but go off seasonally for short period. Semi-nomadic people also move seasonally for longer time but come back to their permanent place of stay. Migration route is fixed and they reoccupy same spots on this route by every

¹¹⁸ P.Rajendran, op cit., p.108.

¹¹⁹ P.Chinna Reddy &V.Varija, "On the traditions and techniques of burying the dead in proto historic Andhra", in *Andhra Pradesh history congress*, 13th session, 2006, p.54.

season. Nomadic is another group of people continuously move on certain geographical zone and will not reoccupy the same spot.¹²⁰s

When dealt with the issues relating with megalithic culture, all the scholars say that the main problem is the absence of habitations. The scholars like Leshnik accept the notion of ‘nomadism’ for this period. Although he accepts the possibility of the use of tools with some agricultural purposes, Leshnik says that the burial practitioners may visit their places regularly rather than resorting to permanent settlement. Some places with heavy deposits of beads, pottery items and iron equipments may have played the role of a temporary camp.¹²¹

But from the light of the available evidences from Kodumanal site and some explorations K.Rajan says that the people who practiced megalithic burials were not a nomadic community. He says that the grave goods like iron, and monuments like sarcophagus and legged pottery etc indicate that the people had maintained a contact with other areas. The possibility for practicing cultivation is there. But the possibility for practicing cattle lifting or hillock products for their living is not a challenging one.¹²² The excavations at Payyampalli, Mayiladumparai etc reveal the strata of neolithic culture immediately below the BRW settlement, which indicate the possibility of the continuity of settlement in that area. In Kerala also we find the evidence of neolithic from Kannyakod hills by Philip Lake (1891) and Faucett discovered it from Wayanad (1901). After several decades the monuments from Neolithic period have been found from Attappady and Aluva. It

¹²⁰ Sheena Panje, “Mobility strategies, site structure and settlement organization: An actualistic perspective”, in *MAE*, 1996, pp.59-65.

¹²¹ L.S.Leshnik., op cit., p.246.

¹²² K.Rajan, “The emergence of early historic period in Tamilnadu”, in *Tamilnadu History Congress Journal*, 2005, p.162.

indicates the possibility of pre-historic habitation in Kerala. K.Rajan surely points out on the basis of the data available from Kodumanal that the megalithic peoples were not a nomadic group. Probably People were involved with the making of various equipments and see the site like an industry from Kodumanal industrial site with the remains of steel, iron, semi-precious stones, beads etc. They used Tamil-Brahmi script. He asks a question that how the group of people with a script and have an active role in trade turned to become a nomadic group? The Sangam and post sangam works say that early memorial stones of South India were raised for the memory of the heroes who died on cattle raids. The earliest records of stones are found on Sangam works as 1st century AD. The early Tamil literature says that the monuments were raised for the memory of the heroes and the type like ‘*nadukal*’ (menhir) were mentioned many times in the work. Most of the *nadukals* are found to be described with some writings. K. Rajan from the evidences of Kodumanal argued that the practice was extended to early historic period also. He says that the discovery of a silver coin with punch mark from a burial at Coimbatore was a clear indication for the extension of this practice in to early historic period. He says that the wide distribution of the monuments and its similarities with the monuments of other areas indicates the technological skill of the people at that time. Likewise, the grave goods indicate that they have an agriculture background and maintained certain advancement in their material culture. He supports the notion that most probably they lived in a house with thatched roof and mud walls. He never supports the arguments of early scholars that they were a nomadic people. The opinion shared by Peter Francis, says that the ‘Pandukal people’ has a strong role in the trade of early historic period. He takes examples from Kodumanal and Arikamedu and says that the production and trade

of beads and other metal are exist at that time and people has a major role in that. He quotes U.S.Moorthi and says that a trade route from the mouth of Kaveri through Palakkad gap which lead to Pattanam is exist at that time¹²³. So may be these people move for various purposes and not for pure nomadic.

When comparing with the availability of habitation sites by Kerala with other parts of South India, it is very less. But at the same time the grave goods and typology of the monuments showed similarity with other parts of the world. So the material culture happened here is similar with other parts of South India. The argument that a group of people with this technology migrated into this region has been very strong. Another view find relating with this observation is that may be these monuments played the role of a 'land mark' for the people who moved through here.¹²⁴ From the above arguments it is possible to reach a hypothesis that the human intervention happened here like other parts of South India. Along with that the skilled peoples might have existed as a separate group for doing these jobs in that time. But the absence of habitations still remains as a puzzle.

Kerala has gradually come to occupy a significant space in the archeological map of India. The peculiar climate and its geographical positions had led the scholars to a conclusion that Kerala was not apt for pre-historic habitations. But the discovery of Paleolithic stone tools from Palakkad has placed Kerala on the pre-historic map. The Paleolithic tools were located in the river valleys of the Malampuzha and Kanjirapuzha and both being the tributaries of the Bharathapuzha, the largest river of Kerala.

¹²³ U.S.Moorthi, op cit., pp.96-112.

¹²⁴ Ian Morris, "Archaeology as cultural History", in *ARCHA*, 1997, pp.17-21.

SUJATHA. K.S. “FORMATION OF MATERIAL CULTURE IN THE BHARATHAPUZHA BASIN DURING THE PRE-HISTORIC AND EARLY HISTORIC PERIOD – A STUDY OF MEGALITHIC BURIALS”. THESIS. DEPARTMENT OF HISTORY, UNIVERSITY OF CALICUT, 2018.

Chapter 3

ARCHAEOLOGICAL EVIDENCE FROM KERALA

Megalithic monuments are the most visible archaeological remains in Kerala. It was so common in other parts of the world too. It is only from 1945 onwards that the Indian Archeological Department has been conducting systematic works on these monuments. After that many initiatives were found, the Archaeologists had begun to analyze the relationship between social practices and patterns of material culture of that period. But that kind of attempts are found very rare in South India and other parts of India. 'Archaeology is considered to be partly the discovery of the treasures of the past, partly the work of scientific analysis and partly a creative imagination'.¹ But in the case of megalithic culture still not be able to reach in a conclusion through either means. No authentic evidences were received other than certain comparative studies.

The reason for giving more stress on the study of societies' past through its remains has been mentioned in previous chapter. The history of a society's pre or early historic past is tracable only through the study of its archaeological evidences. In the case of South India recently began to pay required importance to this, the effort made by the archaeologists and historians in this field was notable. The archaeological remains like Megalithic monuments were received wide acceptance and generally treat this as the only source for that period of time. But the facts behind the burial practices and this megalithic culture were still spread among the peoples as a kind of mythical stories. When take the case

¹ Colin Renfrew Paul Bahn, *Archaeology - Theories Methods and Practice*, London, Thomas and Hudson, 2000 (1991), p.11.

of Kerala's pre or early historic period. Use of the sources like megalithic burial monument is the solid foundation for the study of the early history of Kerala and its similarities of monumental typology and grave goods with rest of India and world may break the isolated status of this geographical area. From the references of Sangam anthologies we may generally conclude that Kerala was part of ancient Tamilakam and have shared geographical significances with other parts of Tamilnadu. According to the references from Sangam anthologies this geographical area (modern Kerala) is generally treated as the Western land (*kutanadu*) or low land (*kuttanatu*) and associated generally with the Cheras., but the absence of structural evidences of a kingdom possibly restrict the scholars to accept the observation that this was "Chera territory". But many of them accept this observation and considered that 'Karoor' near Erode as the capital of Chera territory and the site called 'Pattanam (Muziris) as its major port. The coins with the names of two Chera kings, Perumcheral Irumporai and Ilamcheral Irumporai discovered from Karoor supported the possibility of the presence of Chera rulers there. The evidence from Pattanam also revealed the possibility for foreign contacts in that period of time. But some confusion was emerged regarding the geographical boundary of the Cheras. The areas which adjacent to the Western Ghats like Palakkad, Coimbatore, Salem has been generally treated as part of Chera territory and the area which lies close to this was considered as Kongu nadu. The geographical boundaries of these two areas were considered as to be played a crucial role in moulding the society as a peculiar one, with the presence of Western Ghats and Palakkad pass. This may make the movement of people from different parts of the world so easy from generations to generations. The availability of Roman coins from these regions may support the existence of

trade relations from earlier period.² When connecting the archaeological remains of burials, its grave goods and evidences of Roman trade relations along with the literary references were helpful to understand the picture of structured society in that period itself. The material culture of megalithic monuments has been undergone to controversial observations by different scholars. All of them agreed to the role of alien peoples at that time, but the exterior origin of technology was still making confusions. It is feasible to read the observation shared by B.Subbarao in this context. He questioned the migration of a large group of people here for spreading this burial culture and says that the idea of megalithic burial system might have been received from West, but the potteries, tools, weapons etc were originated in Indian contexts and practiced by the people of here.³ This idea is found to be relevant but requires more detailed scientific excavations to prove this. The typological and grave goods similarities of megalithic monuments in almost all parts of the world can support the idea of ideological adaptations here. The Tamil anthologies depict a clear political possibility in early historic time itself. The songs of *Patittupattu*, mentioned about activities of Chera rulers and through this we get the picture of a clan based society and hill chiefs etc. The bards of that time sang songs for the chiefs and sometimes had references about the death of chiefs and rituals. These parts of the songs in other sense may give a picture of the stratified society at that time. The monuments with elaborated typological significances and rich grave goods indicate the existence of a kind of social differentiation at that period.

² Dr. K. Rajan, *Archaeology of Tamilnadu (Kongu country)*, Noida, Paperback publishers, 1994, pp.45-68.

³ L.S. Leshnik, *South Indian Megalithic burials-The Pandukal complex*, Franz Steiner Verlag GmbH Wiesbaden, 1974, p.8.

MEGALITHIC DISTRIBUTION OF KERALA

Recently large numbers of burial monuments were traced from Kerala and now it makes a position in the archaeological map of Kerala. Kerala is a small geographical area located on South-western part of India enclosed by Arabian Sea on the west and states of Tamilnadu and Karnataka on the eastern, southern and northern sides respectively. The region can be divided into three physiographic zones, the highland, midland and lowland. Kerala was rich in the case of minerals. The use and availability of natural resources like water, minerals etc played a crucial role in raising the standard of living in Kerala. Probably the use of minerals and metals for the production of various tools and implements help the people to develop their life step by step. The occurrence of minerals is facilitated by the geological features of the region. Huge mineral deposits were reported by Geological Survey of India., including iron ore, lime stone, glass sands etc.⁴ Apart from Paleolithic tools, some Mesolithic tools are also found available. The implements of this age were mostly found from Kerala and are made of flakes and the tool types include blades, flakes, scrapers etc. They selected good quality quartz for making equipments.⁵ The climate, geology and other factors have influenced the life of earlier inhabitants. The laterite soil covers over 60% of the total surface area of the state. In Kerala soil types are productive and have a capacity to generate high biomass. The availability of agricultural implements from graves indicates that the then community might have taken to agriculture. Kerala still has one of the richest

⁴ K.Soman, *Geology of Kerala*, Trivandrum, Centre for Earth Science Studies, March, 1980, p.4.

⁵ Rajan Gurukkal, *Social Formations of Early South India*, New Delhi, OUP, 2010, p.98.

biomass in India and in all probability the situation was even better during the pre-historic period.⁶ Megalithic monuments and its varieties had undergone various studies in many parts of the world. Especially in the case of Kerala, the absence of more scientific excavations, the people who worked in this field are forced to conduct more comparative studies than any direct scientific excavations and followings. Most of the studies were based on the typology of the monuments; it generally made a comparative analysis based up on its monumental similarities and differences. But now the grave goods also began to receive more importance. Unlike other parts of Kerala the typologies like *kudakkals* and *toppikkals* received attraction. The main thing is the use of laterite for this purpose. Some argued that this monument was different from other typologies, because doubts have raised about the objective of erecting such a monument. Some say that this laterite structure was just a structure for a memorial and not attached with any burial monument. In our area of study, monuments like cists and dolmens largely found, and *kudakals* and *topikals* are found concentrated in the coastal region. The rock-cut caves, *kudakkals*, *toppikkals*, *menhirs* are seen on the laterite plains and urn burials are mostly on alluvial sea board.⁷ The dolmens both isolated and multiples are found in the hilly region. Large deposits of alluvial soil are found close to the shore along the Kerala coast during monsoon season. Mud banks and large deposits of clay and sand deposits are also found in the same region. The distribution of rainfall

⁶ John Ochanthuruth, "Pre-history of Kerala: Problems and Perspectives" in K.K. Kusuman (ed.), *Issues in Kerala Historiography*, International Centre for Kerala Studies, University of Kerala, 2003. P.14.

⁷ T.V. Mahalingam, *Studies in South Indian Archaeology Epigraphy Architecture and Sculptures*, The Archeological Society of India publishers, Madras, 1978, pp. 50, 54.

throughout the year made the valleys of rivers enriched with high biomass density.⁸

Most of the burial monuments are found in the slopes of hills and rest of them is in river valleys or in places where water sources are found. As stated above Kerala has very few archaeological excavations are undertaken by various agencies. So it's very difficult to trace the exact number of the monuments distributed throughout Kerala. Many burial sites are brought to light due to disturbances in the topsoil for construction, agriculture and other developmental activities.⁹ The excavations and explorations conducted by various agencies are bringing in more sites every day, thus raising the role of Kerala in the pre-historical map.

A study based upon the material culture of that period will be complete only with an enquiry through the understanding of the possibilities of easy movement of peoples to that area connecting with its physical features, technological applications through typological variations, presence of skilled peoples through grave goods etc. In South India 'Megalithic' was the prominent one than any other past cultures. Here the term 'megalithic culture' is used to denote the burial practices, although memorial stones are also part of the megalithic culture. Apart from previous cultures like Paleolithic, Mesolithic and Neolithic this burial culture has received more importance in India and especially for South India due to its wide monumental distribution. But in Kerala the role of these previous cultures still needs further study.

⁸ Srikumar Chattopadhyay & Richard W. Franke, *Striving for Sustainability- Environmental Stress and Democratic Initiatives in Kerala*, New Delhi, Concept Publishing Company, 2006., p.41.

⁹ S.B. Darsana, "Megalithic Burials of Iron Age - Early Historic Kerala: An Overview", in *MAE, Vol. XXXV(2)*, 2010, p. 98-99.

A stone axe of the Neolithic culture has been discovered from Vembayam in Trivandrum district in Southern Kerala. The implements were made out of locally available granite, showing their dependence on the immediate environment.¹⁰ The evidence of those ages available from all the three physiographical zones in Kerala indicates the fact that the region had appropriate environmental situation for the prehistoric habitation from the coast to the ghats. It is certain that at the time people entirely depended on the environment, which determined their mode of subsistence.

The state falls in the tropical region, but the rainfall (mainly South West Monsoon) throughout Kerala is quite high compared to other parts of the country. The Palakkad gap is an important physiographic feature of the Western Ghats. It has a wide ranging influence on the landscape of the state.¹¹ It is interesting to note that the existence of the megalithic monuments are mostly located in area where abundant water supply either by rivers or by tanks were available. The lands near river system and tanks were inhabited by people who are shifting to agriculture.

Like other parts of South India the periods of the megaliths of Kerala also was a matter of controversy. Based up on Mangad excavation (Kollam) considered that Iron Age culture in Kerala has been broadly dated Kerala's megalithic period as between 1000 BC to 100 AD.¹² Another excavation at

¹⁰ P. Rajendran and V.L. Divya, "Megalithic axe from South Kerala" in K.N. Dikshit (ed.), *Puratattva* No: 36, 2005-06, p.51.

¹¹ Dr. N.G.K. Nair, M.N. Kutty, M.J.K Nair, *Resource Atlas of Kerala*, Trivandrum, Centre for Earth Science Studies, , 1984, pp.13, 37.

¹² T. Sathyamurthy, *The iron Age in Kerala-a Report on Mangad Excavation*, Dept. of Archaeology, Govt. of Kerala, 1992, pp.5-16.

Kunnoni by P.Rajendran has been dated as AD 1000.¹³ In the case of South India, it was found that the time period of megaliths is between 1000 BC to 300 BC. The excavation reports of Porkkalam calculated the period between 4th -3rd century BC to 1st century A.D. as the periods of megaliths in Kerala.¹⁴ But the later studies especially, by K.Rajan in the case of South India reveal that the megalithic period was found to be extended up to near 5th century AD.¹⁵

Excavation details of sites in Kerala

When compared to the other parts of South India, only a limited number of excavations were conducted in Kerala. The sites like Cheramangad, Thiruvilwamala, Pazhayannur, Porkkulam, Kakkad, Eyyal, Kattakambal, Chowannur, Ariyannoor, Kandanassery, Machad, Mangad, Vellarakkad, Varandharappilly, Ramavarmapuram etc were in the Thrissur district itself.¹⁶ A.Ayyappan excavated rock-cut caves near Feroke, Naduvil, Anakkara and Ambalavayal. Dolmens of Marayur, Umichipoyil in Kasarkode etc are some other sites. The excavation results of all these sites revealed a fact that the grave goods of all these sites have a common nature like any other megalithic

¹³ P.Rajendran, "The Pre and Proto-Historic Cultures and Environment of the Kallada River Basin in Kollam District in Kerala- South India", in K.K.Chakravarthy and G.L.Badam,(ed.), '*River valley cultures in India*', New Delhi,Aryan Books international, 2005,pp.123-146.

¹⁴ B.K.Thapar, "Porkalam 1948: Excavation of a Megalithic Urn Burial", in *AI*, No.8, 1949, pp.46-52.

¹⁵ Dr. K. Rajan,"The Emergence of Early Historic Period in Tamilnadu", in *Tamilnadu History Congress Journal*, 2005, p.123.

¹⁶ Valsa. M.A, "Megalithic Monuments in Thrissur in Historical Perspective" in *Rural South Asian Studies, Vol.1*, 2015, pp. 60-63.

sites in various parts of the world. Another factor is the periodical similarities with other parts of the world. The excavation conducted at Mangadu was important in the history of Kerala. The megaliths of Mangadu are more primitive than other monuments of Kerala and have been dated to about 1000BC.¹⁷ Roman coins and punch marked coins from Coimbatore were dated as first Century BC.¹⁸ In Kerala most number of Roman coins was reported from Eyyal and Kunnankulam region. The coins from Eyyal are dated from 117 BC to AD 123. The grave goods from Kerala showed great similarities with other parts of South India, especially in its contents. The site excavated in Kerala called Machad (K.M.George and R.N.Mehta) showed the beads had great similarity with the beads that were excavated from Brahmagiri.¹⁹ The beads excavated from Porkkalam is said to be similar with Sulur and the period is calculated between 300 BC to AD 100.²⁰ But the Dolmens distributed in various parts of Kerala are notable for its grave goods. Idukki, Thrissur and Palakkad area are notable for the distribution of iron swords, daggers, bowls, pottery, vases etc. Another important factor is the excavated sites like Machad and Pazhayannur are located at least 10 KM distance between the sites and the excavators say that the pottery BRW among these sites is similar in fabric and shapes. The similarity in shape could have happened due to the sharing of same pottery and may indicate the contact between the sites. 71% of pottery is

¹⁷ T.Sathyamurthi, op cit., pp.12-20.

¹⁸ *ibid.*, p.18.

¹⁹ K.M.George and R.N.Mehta., *Excavation reports of Machad and Pazhayannur, Talappilli taluk, Thrissur District, Vadodara, M.S. University of Baroda, 1978, p.14.*

²⁰ B.K.Thapar, op cit., pp. 47-49.

considered by the excavators as belonging to BRW category.²¹ Some say that in a society may be a particular community of people alone can practice these ritual burials, because it is very difficult for common man to commemorate the death of his ancestor luxuriously. But the problem is that it is a very difficult task to find out the group of people who practiced this.²² If we take the case of South India, it is found that the materials of almost all megalithic grave goods were found to be similar. The iron from Pazhayannur megalithic site is found similar to the other areas. The iron analysis conducted on the iron tools of Pazhayannur and Machad indicates that they were advanced and show 99% of purity and from Tagalghat and Khapa were found the iron tools with 99% of purity. So Leshnik argued that the metal proportions of Kerala sites and Adichanellur are not very different, only slight variations are found, so he assumed their to be same.²³ But this argument cannot be accepted as the final word because iron ore was available in many places of Kerala and possibly the purification techniques used here might have been advanced. But at the same time, the lids of Machad, Pazhayannur, Porkkalam and Eyyal are similar to those of Chingleput.²⁴ Similarly, in the case of pottery, we find the pottery variety like Russet Coated and Painted Ware (RCPW) from the sites of Thiruvulwamala, Umichipoyil, Chiramanangad, Anakkara etc.

²¹ R.N.Mehtha and K.M.George, op cit., pp.12-20.

²² S.P.Gupta,K.S.Ramachandran, H.D.Sankalia, *Aspects of Indian History and Archaeology*, Delhi, B.R.Publishing Corporation, 1977, p.xIII.

²³ L.S. Leshnik, op cit., pp. 84, 87.

²⁴ R.N. Mehta K.M. George, op cit., pp. 3-4, 17.

Common typology of the monuments in Kerala

No	Name of Major Excavated Sites	Types of Monuments
1	Pazhayannur	Cists with stone circles
2	Machad	Cists with stone circles
3	Chiramanangad	Urn burials, Kudakkal and toppikkal
4	Thiruvilwamala	Slab Cists
5	Anakkara	Multi chambered burial with stone circles, Kudakkal
6	Mangad	Urn burial
7	Umichipoyil	Urn burials
8	Porkkalam	Rock cut cave
9	Ariyannur	Kudakkal and toppikkal
10	Feroke	Rock cut cave
11	Naduvil	Rock cut cave
12	Ambalavayal	Urn burial
13	Marayur	Dolmen
14	Kattakambal	Rock cut cave
15	Iyyal	Rock cut cave
16	Kandanassery	Rock cut cave

Source: From the list prepared by Dr. S.V. Rajesh

The excavated sites of Kerala are very few in numbers and we have so many sites are found to be explored by various agencies. The above added list is not complete, but the problem is most of the excavated reports are not available for reference. The excavation of the monuments revealed typology found in Kerala was similar with other parts of South India. A list of megalithic sites which was about the distribution in the basin of river Bharathapuzha was

attached in appendices (See Appendix 1,2,3.).It may help to understand the distribution pattern of Kerala. Rock cut caves and umbrella stones are peculiar among the types seen in Kerala. It has been observed that the Dolmens have most probably played the role of a route mark rather than a ritualistic one. This is based on the geographical position of this monument, since most of the Dolmens are found up on the hills and are mostly distributed on the Coimbatore and Palakkad area which was more close to the dense forested areas of Western Ghats²⁵. Which means the structure of a Dolmen was usually found up on the surface of the land, so there a possibility for site indication in that period.

Typological studies are more common among the people who worked in this area. The typology of the monuments itself indicates the human involvement and his technological skills in this practice. The differences in typology probably indicate the growth of social stratification. The typological varieties showed the depth of human efforts behind the production of such a monument.

The typology of megalithic monuments in South India has been given in the previous chapter. It is already said that the geography of a particular area surely determines its typology. Dolmens are found commonly on the highland area. For example the slabs used for making Cists were very large in size. Of course some stones are roughly cut, at the same time most of the slabs are found to be cut with fine tools. Some cut marks were found on the granite in the nearby area of these monuments. The monuments types like Rock-cut caves, Dolmens, *Kudakkal and Toppikkal* and some rock paintings found alongside them in the

²⁵ Dr.V. Selvakumar, *Investigations into the Iron Age –Early Historic Cultures of the Upper Gundar Basin*, Tamilnadu, South Asian Studies, 2000, pp. 124-129.

shelters of Marayur had shown the artistic capacity of the people who lived at that time.²⁶

The prevalence of fear towards death from prehistoric time onwards might be a probable reason behind this construction of monuments.²⁷ According to another argument, may be the love and affection of the kin and kids of the dead towards him is presented through the construction of these burials. They might have believed in the journey of the soul of dead one to another world. Sangam texts also support this concept of hell and heaven.²⁸ The environment and geography of that particular area may have played a crucial role in determining this typology. Like that with the increase in the social status of the dead, the monuments also may get complex.²⁹ A good understanding about the types or qualities of stones is needed to make any images or monuments up on this granite pieces. For making these kinds of monuments needs high technical skills. Some sorts of skills are inevitable for constructing such kinds of monuments. There is the need to procure the necessary resources and technologies for making the monuments. Thus the establishment of larger monuments requires a more complex social organization.

Recently a project undertaken by University of Kerala listed the distribution of monuments in whole parts of Kerala and revealed its typology more clearly. It may help to understand the general typology of the monument in whole

²⁶ K.J.John, "The Megalithic Culture of Kerala", *SIHC Journal*, 11th session, 1991, University of Calicut, pp. 9-15.

²⁷ S.B.Deo, "The Megaliths: Their Culture, Ecology, Economy and Technology" in S.B.Deo and K.K.Paddayya (eds.), Poona, *Recent Advances in Indian Archaeology*, 1985, pp.87-99.

²⁸ V.selvakumar, "Cognitive Aspects of the Image-Iron Age –Early Historic cultures of South India", *National Seminar on Indian Megaliths*, archaeological and Ethnographic sources, 2005, pp.54-75, p.64.

²⁹ S.B.Deo, "The Megaliths of Maharashtra and Karnataka" in A. Sundara and K.G.Bhatsoori (ed.), *Archaeology in Karnataka*, Mysore, 1990, pp. 110-115.

Kerala. From this we have to make an analyzing that the nature of geography of that particular region may play a role in molding the shapes of that monument.

No	Typology of the Monument	No. of Sites	Districts	Geography
1	Urnburial, Dolmen, Rockcut cave, KudaKkal, Thoppikkal, Hood stone, Sarcophagus	132	Thrissur	Here found low, middle and high ranges
2	Cist, Cairn circle, Hood stone, Urn, Dolmen, Rock cut chamber, Menhir, Dolmenoid cists.	124	Palakkad	Here found middle and high ranges
3	Rockcut chamber, urn, menhir, Toppikkallu, Dolmen, Dolmenoid cist, Cairn circle	134	Malappuram	Low and middle ranges
4	Rockcelt, Rock cut cave, Toppikkallu, Urn, Dolmen, umbrella stone	74	Calicut	Low and middle ranges
5	More urn, Menhirs, Dolmenoid cist, Dolmen	48	Ernakulam	Low and middle ranges
6	Dolmen, Cairns, Urns, Rock-cut, menhir	56	Idukki	High ranges
7	Rock cut cave, Umbrella stone, cist, urn, cairn	94	Kannur	Middle and low ranges
8	Cist, Cairns, Urns, Dolmens, Rock cut cave	22	Wayanad	High ranges
9	Rockcut cave, Cists, Dolmen, Dolmenoid cists, Urn, Umbrella stones, Cap stones	34	Kasargod	High, middle & low ranges
10	Rock cut cave, Urns, Cist burials	24	Trivandrum	Low and middle ranges
11	Cairn circles, Cists, Dolmens, Menhirs, Urns.	38	Kollam	Low and middle ranges
12	Cists, Dolmens, Urns.	10	Alappuzha	Low and middle ranges
13	Cist, menhirs, Dolmen, Rock cut cave, Urns, Thoppikkallu	22	Kottayam	High, middle and low ranges
14	Rock cut cave, Urns, Menhirs, Dolmens	15	Pathanamthitta	High, middle and low ranges

Source: From the list prepared by Dr. Rajesh. S.V, Dept. of Archaeology University of Kerala.

From the lists, it was understood that the geographical divisions may depend upon the typology of the monuments. For example, the types of monuments in coastal, middle and high ranges were of different natures. The types like Dolmens were usually made with granite stones which were plenty on high ranges. Similarly, cists were distributed on huge number in middle ranges and urns and others were found in coastal regions. Slight changes can be seen in some cases. The southern regions of Kerala was notable for the distribution of burial monuments like dolmens and in Northern region, it was covered with Passage tombs and in the middle ranges are found the monuments types like urns, cists etc. The list shows that Thrissur, Palakkad and Malappuram were the three districts where the distribution of monuments was found in huge level. In another sense, it indicates that the burial monuments were the actual representation of human involvements in this area. This might have been happened due to the geographical significances of this area. Bharathapuzha covered these regions and this area may confluence and convergence with Tamilnadu. While considering the distribution in Malappuram district, most of the sites were found in Ponnani basin of the district. Even now people reported many sites every day, the number of the sites is getting increased.

From this it is understood that geography and environment has played a crucial role in the construction of various monuments in Kerala. This table shows the common types of monuments found in megalithic burials. In this study we concentrate more on the distribution of grave goods. The distribution of monuments shows that the monuments were arranged may be according to the stratification which prevailed in that society and other wise according to the

nature of its environment. The convergence between the Dolmens in Tamilnadu, passage chamber tombs in Karnataka and Urns in all the coastal lines clearly indicates their distribution in High, middle and low ranges. At the same time the availability of artifacts with the foreign goods like Bronze and Led supported the possibility of human involvement with other part of the world even from that period onwards.

Another important thing which is found so close to the typologies of the monuments is the 'grave goods' of the monument. Like the typology of the monuments no major changes were seen in the case of grave goods. Among the grave goods the artifacts made out of iron and potteries were found as common, only the changes were scene in its shape and it may represent different purposes of that particular object.

TECHNOLOGY

The grave goods of the monument were clearly indicating the level of technology which was prevailed at that period. Not only have the grave goods the varieties of monuments also needed skills. For dealing with the material culture of an early historic society, the main concentration is on the artifacts of that period. It may indicate the existences of technological growth in that period. Analyzing the pottery, it is found that small and huge monuments were produced at that period and the inhabitants used both handed and wheeled technologies for its production. Similarly, iron tools and weapons indicate the craft man's skills of the blacksmiths who lived at that time. The monumental types were also found to be very interesting due to the varieties of its structure

and shape. Most of the varieties need high skills and large labour power to make. So we are forced to believe that the burial practice and its related aspects demanded a local process for it. There is a chance for the existence of a settlement here, but more surface and horizontal enquiries are needed to confirm this possibility. In another sense, the technology of a society always prompts us to link it with a group of people who safe-kept this knowledge. Knowledge is the force which stood behind the use of every technology and that may be propagated by a particular society. It was unknown to us that such a society with technological awareness developed here, linearly or otherwise. We can hope that a study on an ethno- archaeological level may help to make things more clear.

Leshnik and his work regarding the Megalithic practices are considered significant. He viewed that megalithic folks were pastoral in living and had supplemented their food with some meat.³⁰ But now with the rise of new branches of knowledge, people began to think differently and give importance to the study based on materials to understand the past. The grave goods of the burial monuments were the clear evidence for the existences of technology even in that period itself.

Among the megalithic varieties found, cists were widely attached with burial grave goods. The excavators at Arippa received copper bangles and ear rings covered with gold from a Cist burial. Similarly, the Cist burials received from Puliur were gold ear ornaments. Bronze was also reported from a Cist

³⁰ L.S.Leshnik, op cit., p.78.

burial of Thiruvilwamala. K.J.John has reported bronze from Naduvil and Permbra and this is considered as the bronze reported site in Kerala.³¹Thirunavaya, Kuruvattoor, Chittari and Perambra are the other important megalithic sites in Kerala.

Many types of megalithic monuments were discovered like Dolmens, Menhirs, Kudakkal, Toppikkal etc. Apart from these, varieties of iron implements and potteries indicate that the potters and blacksmiths were highly skilled in their profession and the products have great value in that society.³²Similarly, the monumental structures like Kudaikkals, Thoppikkals, rock-cut caves and all other varieties show that a group of people who were practicing masons and carpenters might have existed at that time. It is generally viewed that these group of people with technological skills were wandering here and there to provide their services in the places where they demanded it. But this kind of an observation may support the possibility for the presence of a group of people here. The artifacts which were received from the grave goods may aid in getting a picture about the technological growth of that society. At a time the grave goods revealed the existence of technology and their contacts with other parts of the world too. When going through the archaeological distribution of the artifacts, it is possible to make a reference of Sangam literature for more relative comparisons.

³¹ K.J.John, op cit., pp.12-18.

³² Ajit Kumar, "A Socio-Economic Study of the Megaliths in Kerala", in K.K. Kusuman (ed.), *Issues in Kerala historiography*, University of Kerala, *International Centre for Kerala Studies*, 2003, pp.50-53.

List of Material Remains from the Megalithic Graves:-

Iron	Pottery	Copper	Bronze	Gold	Beads
Cutting knife Swords, Chisels, Hammer	Black and Red Ware (BRW)	Bowls	Bowls	One gold ornament	Carnelian Agate Jasper Feldspar
Wedges Axes	Black Ware(BW)	Vessels	Bells	Gold sheet	Crystal beads
Blades	Red Ware(RW)	Lamp ring	Bangles		Glass Beads
Plough like model Sickles	Russet Coated Painted Ware (RCPW)				Terracotta Beads

Source: (This list prepared by me with the information from S.B. Darsana's article-grave goods of various excavated sites of Kerala)

This table shows the richness of the material background of the people who belonging at that time. It is understood that the material culture probably reflect the life of early people completely. Every society may develop a kind of technology for their survival and BRW pottery is generally seen as the main grave good of the megalithic culture.³³ The linear growth of the society is not proved but some kinds of technological continuation might have existed. The evidences of exterior relations, archaeological and literary references of settlement, spread of various tools and weapons etc again and again prompt us to guess the possibility of a material background in Kerala from that period onwards. In Kerala we have a few excavated sites and a table which showed the distribution of artifacts in Kerala is added below. It is hoped that through the data of table, we are able to understand the distribution of grave goods in various

³³ Dr. P. Shanmugam, "Black and Red Ware Habitations in Tamil Country: A Study" in *S.I.H.C.* 9th Session, Poona, 1988, pp.155-158.

parts of Kerala and have made certain indications about the mutual contact of the people who lived at that period.

No	Excavated Sites of Kerala	Grave Goods
1	Pazhayannur	BRW, Iron remains, Carnelian, Agate, Crystal.
2	Machad	BRW, Iron remains, Carnelian.
3	Thiruvilwamala	RCPW, BRW, Bronze, iron implements.
4	Chiramanangad	Iron remains, BRW, Beads like Crystal, Carnelian.
5	Porkkalam	Iron remains, Jasper, Carnelian, BRW
6	Anakkara	BRW, Iron remains, Carnelian, Crystal.
7	Mangad	BRW, RW, Iron remains, Carnelian, Agate.
8	Eyyal	Roman coins, BRW Potteries, Iron artifacts
9	Ariyannur	BRW pottery, Iron remains, Crystal, beryl, Jasper
10	Marayur	BRW, Carnelian, Crystal, Iron implements.

Sources: The list was prepared from the information of various articles relating to the excavation of Kerala.

The grave goods of the megalithic burial monuments silently spoke human contacts and have to understand the technological skill also. Here, one needs to connect the similarities of the typology of the monuments, grave goods, availability of foreign artifacts, and possible human power behind the construction of monuments, tools and weapons in a single platform. This hints at the possibilities of togetherness of people in that period itself. The material evidences can support the possibilities of a collective effort of the developments of human beings in that period onwards.

This list of artifacts showcases the technological skills of the people of that time and the beads like Carnelian, Jasper, and Agate etc support the possibility of their contacts with other parts of the world. Apart from some grave

goods like potteries, beads, iron and other metal remains, no more remains of bones were available from Kerala. In Kerala the burials were seen as fractional or post-cremational in nature. Arippa in Kollam was an exceptional site which contained child burial remains.³⁴ Machad and Pazhayannur were other two important sites which received charred fragments of skull, radius and ulna etc. The remains of cattle bones were recovered from Machad.³⁵ The availability of Bronze also reported from Kerala's megalithic sites. Thiruvilwamala in Thrissur district was one important site from where Bronze bowl was discovered. In Kerala some areas like Thrissur, Palakkad and Malappuram found some Bronze industries recently. Gold was reported very rarely, Arippa and Mangad in Kollam, Puliur in Aleppey was the sites which found gold attached with the megalithic monuments.

Rice husks were reported in a site called 'Chokkanad' in Idukki, sickles and hoes from Porkkalam and Angamali and grinding stones were from Perungulam and Panunda in Kannur district. Umichipoyil was another site explored in Kasargod district of Kerala which was notable with iron and pottery varieties. Lipped bowl and channel Spouted vessels, Lids of BRW, remains of Iron chisels and weapons, flattered pieces of iron etc are the important remains received from this site.³⁶

These are the general facts about the material cultural remains of Megalithic burials in Kerala. These facts not only indicate the existence of the

³⁴ P. Rajendran, *The prehistoric cultures and environment (a case study of Kerala)*, New Delhi, Classical Publishing House, 1989, pp. 87-112.

³⁵ R.N.Mehta and K.M. George, op cit., p. 20.

³⁶ Jayasree Nair,K, "Exploring the megaliths of Kasargode", *The Journal of the Centre for Heritage Studies*, 2005, pp.20-33.

monuments as such in those times, but also show the presence of a group of people of those days and also the use of technologies by them at that time.

Grave goods of the monuments and its archaeo-literary relation

The varieties of grave goods were understood from the above given list. Along with this it is needed to give more clarification to the things which we received from the monuments. The contemporary source of the monuments like Sangam has given so many references regarding the objects.

Beads

Beads are the important grave goods which show the relation with other areas. Along with the typological varieties of the beads are found both etched and unetched varieties. The beads made with Quartz are locally available in plenty here but other varieties like Carnelian, Agates etc were not locally available here. Beryl was available in plenty in Coimbatore region of Tamilnadu. About 8 % of the 126 beads found at Machad and Pazhayannur were etched carnelian. The etched beads available from Kodumanal near Coimbatore were similar to the beads of Palakkad area.

The importing of various jewels through ships is mentioned in Tamil anthologies. The beads which were called as *Muthu* were found in the *Neithal* zone referred above. There are references regarding the jewels and dresses which were collected from hills as in PN 377 *Malai payantha maniyum, Kadaru payantha ponnum kadal poyantha kathir muthim..* Most probably, it was an indication of trade contacts or was brought by a wealthy man during his journeys. *Mani* is another term used, that has led to confused interpretations. *Konkar padumani* (AN 79), *konkar mani* (AN 368), *chudar mani* (AN 69) etc are found.

Historians generally accept this as the 'bell' or 'bead' which was tied upon the neck of the cow. Obviously this 'bell' was also made of metal. The cows with *Kodumani* (AN 191) are found to be mentioned. AN 73 mentions about the chain with beads used by the heroine. AN 217 also says about pearl. AN 201- Refers to the brightened beads available from *korkai nagaram*.

In AN 290 the eyes of the heroine were compared to the blue jewels available from *Tondi Pattanam*. In all these cases the term 'mani' appears to refer to beads. *Patittupathu*(fourth decade - 9th song) mentions about a lady who wore a bright and beautiful beads on her neck.

Gold

It was originally mineral, but this was not to be distributed widely in that period. PN 218 refers to *Ponnuthukiru muthu minniya.... Kamaru-maniyum*-It means the chains made with beads and pearls. Again PN 353 also mentions about the ornaments made by the smith with the beads of *ponnu*. It is not sure whether the term *ponnu* meant gold, but from the available evidences it is difficult to accept this as 'gold', since not much remains of ornaments made with gold were received. We get remains of gold very rarely from the sites, with the exception of Roman gold coins. They may have used this word to refer to any other metal whether it is precious or semi-precious. Arippa was one important site where gold was reported. The source of the metal was getting little confused, even in Kerala it is claimed that Nilambur was a centre of gold in Kerala. Koyilandi in Calicut also being reported as the places where gold was found.³⁷

³⁷ K.J.John, op cit., p.34.

However, AN 173 mentions *Ponpadu marunkin malaiyiranthore*. Here they used this to denote the migration of the hero to a 'wealthy area' for profit, which may indicate the presence of gold also. So the real meaning of the term needs to be checked. It is clear that the use of metals was associated with wealth.

Iron remains

Iron was considered as a widely distributed metal and was attached with megalithic burial culture. Ambalavayal, Angamali etc are the sites where tools like Plough and sickles were excavated from megalithic burials. Iron slags were received in almost all parts of Kerala. Kannur, Palakkad, Calicut, Thrissur and Kottayam are listed as areas with abundant availability of iron in Kerala. Iron slags were reported from the premises of habitation sites in Kodumanal.³⁸ Many types of iron artifacts were received from the grave goods of megalithic monuments and it is found to be distributed in large numbers. The origin of iron and its wide distribution was still discussed by the people who worked here. People like N.R.Banerjee and B.Allchin argued that the origin of iron in India was not an indigenous one and probably they came from Western countries.³⁹ But here in so many parts of Kerala found the remains of iron slags. Even from the excavation of Pattanam also were revealed iron slags. Like that through our field work it is possible to collect slags from the site called Vazhani (near Machad) and Thiruvilwamala another megalithic sites.

³⁸ K.Rajan, "The Emergence of Early Historic Period in Tamilnadu", in *Tamilnadu History Congress Journal*, 2005, pp.13-23.

³⁹ Dilip. K. Chakrabarthy, "Distribution of Iron Ore and the Archaeological Evidence of Early Iron in India", *Journal of Economic and Social History of the Orient*, Vol.20, 1977, pp.165-170.

No	Iron Variety	Possible Purpose of the Object
1	Knife	For cutting, may be for planting
2	Sword	Cutting trees or for hunting
3	Sickle	For agriculture
4	Hoes	May be for preparing soil for cultivation
5	Hook	For hanging things
6	Tripod/vel	Hunting

Source: From the excavation reports and other secondary sources.

The above mentioned purposes are prepared according to our present notion. Because no more evidences have been available to us regarding the purpose of the monuments and other things. Among the available iron artifacts there is a possibility that, some implements have widely distributed in all sites. May be the types like sickles, axe were used widely for the local use, because it was probably found more close to the agriculture and their daily life. At the same time the Swords, tripods etc might have needed some more technical skill. Here says that may be the technology of these implements may come from outside, but have absorbed by the indigenous people in to their daily affairs.

The references from Sangam substituted the wide use of iron in that period onwards. PN 316 mentioned about iron sole and PN 312 says it was the duty of the smith to make a *vel* for war. That particular line goes like this, *velvadithu koduthal kollar kukkudane*. AN 258, mentioned about *ponnu*, which we are not sure whether is gold or some other metal. AN 399, and AN 21 mentions about a tool called *Kanichi* which used for cutting hard things like stone. AN 113 mentions about the tools used for killing travelers at *Palai* zone. Interestingly we get some references regarding furnaces of smiths. AN 202 mentions about smoke which goes out from smith's furnace (*Ulai*).PN 202 says

Kollan mithikuruk Uthu Ulai pithirvin pongi for referring to the furnace. PN 42, 23 etc also mentions about '*Kanichi*' used to cut woods in the forest. AN 74 mentioned '*Kodunkol*' - that was used by the cowboys. It was probably an iron rod.

Pottery

There are no megalithic monuments found without the attachment of potteries. The types called BRW were the most important grave goods in these monuments. The types of pottery like Rouletted Ware, Russet Coated Painted Ware considered as found in rarely from the artifacts. Rouletted Ware was very rarely reported from Kerala and Vizhinjam and Pattanam were the two important from where this pottery was reported. Among the varieties of potteries, the RCPW is considered older than other types. The RCPW is reported from Thrissur, Malappuram and Palakkad districts of Kerala. Thiruvilwamala (1937), Machad and Pazhayannur (1975), Pazhampalakoode (1975) Thirunnavaya etc. are some sites in the study area which reported this RCPW pottery. Apart from Kerala this pottery was collected from Kodumanal, Nilgiri, Coimbatore and Madurai in Tamilnadu. Some districts of Southern Karnataka also are sites of RCPW pottery. At Kodumanal RCPW is found to be preceding BRW and in the succeeding phase BRW is found to be spread largely and RCPW is absent gradually.⁴⁰ The availability of RCPW in Thiruvilwamala, shows the distribution of pottery type the study area, comparable to other parts of South India. This indicates the diffusion of technologies from other parts of South India. The existence of a group of people with these technologies is of primary concern in our study. Different types of potteries were received from grave goods in many

⁴⁰ K. Rajan, op cit., pp. 21-24.

parts of Kerala as well as world. Small pots, dishes, huge urns, dishes etc were received commonly. In earlier period the exchange of potteries were so common, the exchange of ceramic with Indian Ocean region have been existed from that period itself. Pottery was other important remains of burial culture. That pottery needs skillful labor and technology to make a pot or vessel etc. In most cases the clay used by the potter is locally available one.⁴¹ Like that the varieties of pottery like BRW and Red ware may be widely used by early historic people, at the same time Rouletted ware and RCPW might have existed on outside. Because these two types of potteries were not to be distributed widely in Kerala.

The Expansion of Agriculture and Iron in Megalithic Period: a Possible Growth Through Technological Advancement.

The development of agriculture and spread of iron implements were of course happened through the technological advancement of any society. But that technological advancement might have happened with the passage of generations. On considering the case of Kerala, we cannot confidently say something regarding the development of agriculture in a wide sense. The archaeologists received only some remains like 'kozhu' (plough), sickles, hoes etc from grave goods. The sites like Arippa and Kuppakkolli are the two sites where this 'kozhu' was collected. Anakkara in Palakkad district revealed charred grains, probably a ritual offering, but indicated the existence of agriculture. M.L.K. Moorthi, an eminent scholar who worked in South India, says that agricultural settlements of South India can be traced back to third century BC.⁴². He worked in the states of Karnataka, Andhrapradesh and Tamilnadu and found

⁴¹ Fanny Vitto, "Potters and Pottery Manufacture in Roman Palastine" in *Institute of Archaeology Bulletin*, University college London, 1986, pp.1-10.

⁴² M.L.K. Moorthi, "Pre-Iron Age Agricultural Settlements in South India: An Ecological Perspective", in *MAE*, 1989, PP.60-69.

out that these are semi- arid in nature and semi- settled village agricultural system existed. The objects like '*kozhu*' was received in a very limited number from the monuments of Kerala and it may indicate the agriculture with preparing the land was not widely practiced here. In this background we realize that a study which is about materials may make picture clearer. The finding and production of iron was a serious matter for discussion. The hardness and sharpness for this metal may increase its importance. The artifacts made with iron may not only be used for hunting, but also for cutting too because the possibility for mountain rice cultivation existed here. Sangam sources also supported the existence of 'slash and burn cultivation' in the region. The nature of iron artifacts also supported this kind of cultivation because we did not receive so much of burial monuments from near to paddy fields in Kerala. The cultivation up on the hills never demanded the efforts like preparation of land and other things. This kind of cultivation was still followed among the tribes of various parts of South India. Like that the remains of ash from Nilambur area of Kerala would support this argument.⁴³ Sangam source mentioned a term like *eriparantha* for this slash and burn cultivation. Sangam literature mentioned the *Punam* cultivation in that period.

When looking the megalithic distribution of Kerala it is found that the monuments like Dolmens, Dolmenoid cists, cists etc were on the hills and table lands. But the latter developed monuments like Urns were sometimes found to be located near the places which are suitable for cultivation. It can be showed as the evidences of gradual movement of people from hills to table lands or in other sense it indicates the possibility of mountain cultivation preceding wetland

⁴³ Rajan Gurukkal & Raghava Varrier, *Cultural History of Kerala, Vol.1*, Trivandrum, Department of Cultural Publications, Government of Kerala, 1999, PP.124-145.

agriculture. Of course the invention and wide distribution of iron support the existence of iron at least in hilly areas, but many of the scholars like Dilip Chakrabarti and Rajan Gurukul also viewed that in South India the iron tools and weapons found to be centered on megaliths but no drastic change was happened here even in the field of agricultural production due to the invention of iron. But Dilip Chakrabarti supports the existence of a strong village economy in that time⁴⁴. But persons like S. Nagaraju and B.K.Gururaja Rao , U.S.Moorthi etc support the existence of a mixed economy in South India, that means, agro-pastoral economy prevailed then. The availability of iron tools and large pottery may support the development of production process in that period. Scholars shared different views regarding the use and spread of iron. Viba Tripathi says that the development of all kinds of technology may support the possibility for production increase, development of society etc⁴⁵.

At the same time some scholars like M.D.N. Sahni, says that comparing with North India; no major development was found in South in the field of agricultural production. He says that the absence of ploughshares in agricultural field force us to think that iron was not played a crucial role in the then society⁴⁶. But from the available grave goods and monumental distributions we can hope that the agriculture prevailed in South India was entirely different from other parts because here, the artifacts of graves support the practice of ‘hill based cultivation’ existed here and there the things like plough and others were not needed.

⁴⁴ Dilip. K.Chakrabarti, “Beginning of Iron and Social Change in India” in Bhirabai Prasad Sahu (ed.), *Iron and social change in India*, New Delhi, OUP, 2006, pp.114-120.

⁴⁵ Viba Tripathi (ed.), *Archaeology in India*, Delhi, Sharadha Publishing House, 2005, pp.120-45.

⁴⁶ M.D.N.Sahni, “Agricultural Production during the Early Iron Age in Northern India” in Bhirabai Prasad Sahu (ed.), *Iron and social change in early India*, New Delhi, OUP, 2006, pp.195-197.

Rajan Gurukkal who makes certain observation that the megalithic period witnessed the changes in ancient Tamilakam. At the same time he argued that in the field of plough agriculture no significant change happened⁴⁷. Many scholars say that agriculture and other complicated practices had begun with the Neolithic revolution onwards but here we could not received such kinds of evidences.

With the absence of more archaeological evidences regarding the spread of agriculture, the location of megalithic monuments also say something silently. Most of the sites are possible to see up on the hills and its slopes. The same might have happened in our area, because the monuments were found to be distributed largely on the hill slopes near the basin. This supports the human involvement on this hilly area and the chance for cultivating there.

The idea contributed by Sivathambi need to be analyzed in this context. He says that apart from the five poetical divisions of Tinai, it is better to look these divisions as five way of living or divisions of labour. May the divisions like Kurinji, Mullai, Palai, Marutham and Neithal indicate the existence of different forms like animal husbandary, shifting cultivation, petty commodity production and plough agriculture?⁴⁸

Here, it is needed to look the problem in another view, in Kerala; the scholars made a picture regarding the past of Kerala began with the coming of Brahmins. The people who lived here initially do not come to the picture. It was found during the period between 8th and 9th centuries, agriculture began, which

⁴⁷ Rajan Gurukkal, op cit., pp.65-79.

⁴⁸ K.Sivathambi, "Early south Indian Society and Economy: The Tinai Concept", in Social scientist, Indian school of social sciences, 1974, pp.23-30.

was only after the arrival of Brahmins and the emergence of temples. M.G.S.Narayanan also says that the Brahmins got patronage from the rulers and in return, the Brahmanas gave high position to the rulers in the social hierarchy. However, Rajan Gurukkal opined that from many megalithic sites, he received the evidence regarding the existence of cultivation at that time. Anthologies mentioned *uluvar and tholuvar* are the tillers of the land (AN:30:8, 37:2,41:6), paddy and salt was referred to as the important means of exchange at that time. But he says that the Brahmins with their ritual superiority took the control over the wet lands and they made a systematic control over all these efforts with the power of ruling Chiefs. It could have prompted the peasants to support the Brahmins and it helped them to take the control over the land⁴⁹. Kesavan Veluthat and many other historians reject the beginning of agriculture in Kerala before the beginning of temple oriented society. But their involvement in slash and burn cultivation along with hunting is understood through the grave goods remains and from the references in Tamil heroic poetry.

The Reflection of the Life of Early Historic People through Its Artifacts

The artifacts received from the burial monuments of megalithic was the only source which throw light up on the people who lived at that period. For example the iron remains help us to understand the way of living by the people like hunting, agriculture or other forms of life etc. So from these available artifacts and other goods, we can understand the responses of the earlier people to the world which they lived because the stages like hunting, gathering, agro-pastoralism, craft production, exchange economies etc made social formation possible. The listed

⁴⁹ Rajan Gurukkal, op cit., pp. 40-45.

artifacts like iron tools and weapons revealed certain patterns in the living circumstances of the people in that period. The society might have witnessed kinds of mutual contacts with other parts of the world from that period itself.

The artifacts like pottery, iron varieties, beads and all the typologies mentioned about the monuments reflect the life of the people who lived at that time. A scholar M.D.N.Sahni viewed that it is feasible to divide the type of iron which we receive from graves into four different categories namely weapons for warfare and hunting, household objects, craft tools and agricultural tools⁵⁰. This may indicate the lifestyle of the people who lived on that period. Like that, the wheel made potteries indicate their intention towards the long lasting of that pottery. The pottery with various sizes showed its various purposes. The big potteries may be indicating the storage purpose of the people who lived at that time. When taking the case of beads, it is found that so many varieties of it were available in plenty among the burial monuments. Among the beads found, there were the varieties like Carnelian, agate, jasper, quartz etc and in some beads found etched marks. The beads received from Pazhayannur and Machad are notable with its etched marks present in them. This etched mark indicates the possession of those beads by someone. In other way the varieties of beads, complex burial structure etc indicate the possibility of a social stratification in that period. The bead varieties like Jasper, Carnelian etc may be kept by the elite class of that society or the traders. Like that the exported items like Bronze, Copper, Lead etc may indicate the presence of an elite class in that society. The Tamil classical texts like *Purananuru*, *Akananuru*, *Patittupattu* and its related

⁵⁰ M.D.N. Sahni, op cit., pp. 89-96.

songs mentioned about the trade, traders and trade goods etc. The literary references validate the chance for relations with other parts of the world. The varieties of potteries like Rouletted Ware, RCPW etc indicate the origin of those which was from outside. It supports the possibility of migration or the existence of any kind of link with outside world by the inhabitants of that period. Like that the potteries like BRW, RW etc revealed the existence of technology in local level also.

M.G.S. Narayanan says that Kerala was covered with heavy forest and was rich with rivers so a 'home based' human habitation was a difficult one. So people might have moved from one place to another in search of their resources for living⁵¹. Many of them support the possibility of a semi-nomadic settlement here and stone structures used as route marks are feasible to connect with each other. The presence of material remains from grave goods indicates the existence of human presence in here too. But I consider that there is no need to raise any questions regarding the race and origin of the people who lived here in that time. May be they include a group of migrants and sometimes they were indigenous. So the need here is to understand the activities by them through the remains of grave goods. The artifacts support the existence of a skilled community lived there. All pottery was not made with wheels, but some large urns were made using bare hands. At the same time small vessels were found and pots were made with such finishing and small rims were made with the use of wheel. The making of pottery whether it was handmade or wheel made, need a skill. So apart from the concern of the origin of people, it was able to say that there lived a group of

⁵¹ *Personal interaction* by the researcher with Dr. M.G.S. Narayanan

people with this technology. The availability of copper and Bronze artifacts extends the possibility of the origin of this metal from West Asia and possibly the technology was spread from there. There is anything wrong in think that the origin of technology may have happened from other parts of the world. But it needed to accept its local adaptation in either means. The nature of artifacts might have represented the real life style of the people at that period. Sangam literature mentions about the living of the people of that time. Trade and cattle keeping were mentioned as the main life style of the people at that period.⁵²

All this has significance in tracing the antecedents of the megalithic people of Kerala. From the artifacts and other remains, some of them calculate a possibility for the agro-pastoral nature of their livelihood and reject the nomadic life of the people of that time. Generally historians and archaeologists have made various opinions regarding the megalithic practitioners, based on the similarities found between the typology, grave goods etc. Most of the views are based up on migration by the people in pre or early historic periods. The persons like Leshnik,⁵³ Kennedy⁵⁴ etc support the possibility of large scale migration in to South India. But at the same time, the historians who worked on South Indian megaliths claim that the practitioners of megaliths were local people and not Aryan in origin.⁵⁵The similarities found between the grave goods and typology is

⁵² K.V.Raman, "Archaeology of Sangam Age" in *IHC*, 1978, PP.50-56.

⁵³ L.S.Leshnik, op cit., pp.89-95.

⁵⁴ K.A.R.Kennedy, *Human Skeletal Remains from Mahadaha: A Gangetic Mesolithic Site*, Newyork, Cornell University, p.45.

⁵⁵ K.V.Soundara Rajan, "Middle Paleolithic in India" in K.N. Dikshit (ed.), *Archaeological perspectives of India since independence*, New Delhi, Books and Books publishing, pp.10-13.

the base of these origin theories. From this, it is clear that typological similarities and variations reveal the universal existence of a technology even at that time as well. So the chance for a cultural interaction existed in those times. The observation shared by various scholars regarding the living style of megalithic time is needed to consider here.

S. B. Deo is of the opinion that the megalithic people were located either up on a small hilly area, otherwise they centered on a riverside area. It may indicate that they used the site which is rich with materials which was useful to them. That means the hilly area is rich with its minerals and some hill products and the river bed is suitable for agricultural purposes.⁵⁶ With the use of fine touched Black and Red Ware pottery and different types of iron tools, the possibility of the existence of an agro-pastoral economy is put forward by some scholars.⁵⁷

From all the above discussion, one thing is tried to point out that only the artifacts which we received from the monuments have spoken something about the early historic life of the people. We can develop certain understanding only through this regarding the probable existence of a skilled people at that time whether they had migrated for a long period or short. Earlier discussions regarding the nature of people who kept this technology is generally centered on its origin, either from Aryan or Dravidian. But here it does not intend to make

⁵⁶ S.B. Deo, "The Megaliths; Their Culture, Ecology, Economy and Technology", in S.B. Deo and K.K. Paddayya (ed.), *Recent advances in Indian Archaeology*, Pune, Deccan College, pp.87-96.

⁵⁷ G.K.Lama, "Megalithic Culture: A Prelude to the Subsequent Economic Growth in Peninsular India and the Deccan" in K.N.Dikshit & Ajithkumar(ed.), *The Megalithic culture of South India*, The Indian Archaeological Society, 2014, pp.324-330.

such comments; otherwise it tries to point some possibilities of human interventions with each other and their possible actions because still now, we do not have much evidence to prove the indigenous origin of these technologies. So we went to migration hypothesis. It is not necessary that the migration of people from other site was in a complete sense, at the same time there possibly happened the adoption and adaption of certain technologies and concepts. Possibly both the indigenous and migrated people were involved in that process.

Evidence of Settlement in Ancient Tamilakam:- During the Early Historic Period

The early historic period of Kerala and whole of South India was notable with the distribution of megalithic monuments. When we are going to discuss about the probable settlement of that time the case of Kerala was found very poor. At the same time from other parts of South India the archaeologists have traces some brick structures and others as the remains of settlement by the people who inhabited at that time. Here in Kerala we take the monumental remains and artifacts as the symbol of human beings presence at that period.

When trying to find out the living style of early historic people it is better to consider that along with the history of other parts of South India. The term 'Ancient Tamilakam' is used here, because the boundary of present Kerala was created only in later periods. The settlement happened through various kinds of involvement like trade, cultural interaction etc. But these kinds of involvement may happen through the efforts of some 'agency'. The use of iron tools and implements also may help in beginning the settlement here. Like any other parts of South India, here also the roles played by the physical environment to mould the life of human

beings were notable. It is found that both the hills and rivers may have received the attention of megalithic builders. Other than the artifactual remains no more evidences were received about the existence of human beings on here in early historic period. Only from the distribution of monuments, here hope that they were lived on hill slopes and the water available area in early historic period.

Probably in early historic period, people depended more up on their surroundings for their existences. Probably they selected an area which is rich with resources for their living. May be that was the reason for the abundance of monumental remains on the hills and riversides of Kerala and whole South India. Champakalakshmi also mentioned that the spices like cardamom and pepper were found plenty in the western hills in early historic Kerala. She mentions that the hill tracts also were rich with their mineral resources in early historical time. The richness of hill products and minerals on the hilly area of Tamilakam may prompt the notion of human dependence up on hill products in early historic period. The settlement on river valleys of the early historic Kerala was comparatively difficult to accept. The existences of the exchange of hill products with coastal items revealed the probable living style of the people at that time. The evidences from the foreign records and Tamil anthologies also supported this. The hill products and minerals of course played a crucial role in the life of early historic people. But of course there exists some human involvements on the shores of rivers and sea. But the land is rich with 44 rivers and it was very difficult to settle in such an area with heavy monsoon. Sangam mentioned the salt manufacturers on the area called *Neithal*. But from the geographical singularities the hill products were found abundantly than the resources of sea atleast in the case of Kerala and Tamilnadu. The *Kongu* region is rich with

mineral resources and the area which connects West coast to the eastern plains and coast via Palakkad pass⁵⁸.

Some kinds of debates are held about the settlement of the people who practiced burial at that time. Likewise, it is already said that the reason for such a kind of belief is that the absence found in the remains of habitation challenged the possibilities of a settlement pattern in here. But in some sites of Tamilnadu, Karnataka and Andhra Pradesh, excavators were successful in locating some habitation sites⁵⁹. In considering the case of Kerala, the picture is found more complicated due to the almost total absence of habitation. The only exception is Pattanam near Kodungallur.⁶⁰ But the large distribution of burial monuments found in Kerala itself is a reason for this enquiry about the possibility of a material culture formation and the related settlement here. Rajan Gurukkal and Raghava Varrier say that the main problem for the absence of habitation sites in Kerala is the lack of systematic surveys, poor visibility of habitations, thick vegetation, continuous and wide use of land in the modern period etc. They accept the view made by Renfrew and say that the possibility of ‘dispersed settlement pattern’ probably existed here like his views on European megaliths.⁶¹

The interrelationship between man, land and environment is considered as the basic factor in all settlements. E.Z.Vogt defines settlement pattern studies as a

⁵⁸ R.Champakalakshmi, *Trade, Ideology and Urbanization*, New Delhi, OUP, 1996 (2010), pp. 26-27.

⁵⁹ Brahmagiri, Maski, Kodumanal, Karur etc. are some sites which locate habitation sites along with burial monuments.

⁶⁰ Pattanam or Muziris (?) is a discussion is going on here. Now Pattanam was whether able to say as an actual trading centre or a trading emporium. Once a final draft is came then only we can able to say it as finally.

⁶¹ Rajan Gurukkal and Raghava Varrieer, op cit., p. 129.

‘manner in which household and community units are arranged spatially over the landscape’. Ansari says that ‘settlement in very earlier period is found in various types, settlement for a few days, Temporary settlement for several weeks, seasonal settlements for some months, semi-permanent settlement for some years.

In the case of Iron Age, we observe that Tamil classical works are considered as parallel to this period. The life of the people who lived at that period is pictured in these works. The tools which were mentioned in the Sangam poems are similar with the artifacts found in the graves of megalithic monuments. Poems also mentions about the importance of hills, valleys etc⁶². So when we look at the case of our area, it is found that most of the monuments were located in the valleys of rivers or the slopes of hills. It may be because the people used the natural resources available on the banks of rivers and forest. The discovery of Iron tools and weapons also support their settlement. We assume that the appearance of tools and artifacts represent the people of a different technological group. It is generally assumed that the effort of human beings can be found behind every artifact. Geography and its resources played a crucial role in the formation of human involvement in all societies. The role played by mountains and rivers in the life of early people is crucial. If we consider the references from Sangam poems, it is found that the patterns of living of the early people highly depended on their surroundings.

Apart from this, some studies say that this period (megaliths) marked the beginning of urban culture in Kerala,⁶³ but most of the scholars did not make a positive response to this argument. The observation made by H.D.Sankalia is

⁶² A.V.Subrahmaniam, *Sips from the Sangam cup*, Madras,1968, pp.35-54.

⁶³ K.V.Suji, ”Iron age the beginning of urbanization in Kerala”, *Perspectives of Kerala studies*, Kalady, 1999, pp.45-56.

interesting. He says that the large urns were used for the purpose of storage and the pottery like bowls and dishes indicate that the people were well developed and led a good life style⁶⁴. Same kind of observation was made by other historians also.⁶⁵ But nowadays, these arguments are not widely accepted.

In the case of Kerala, we believe that it shares the living environment with Ancient Tamilakam. K.Sivathamby in his article 'Early South Indian Society and Economy – The Tinai concept' makes a table of each Tinai and its peculiarities. In his view, the five Tinais represent various geographical divisions and each of them lead various living pattern according to their geographical conditions. If it is true, we find that geography has played a crucial role in the formation of every human life and settlement here. The early literary source available in South India is the Tamil classical literature. From the Sangam literature we get the evidences of the groups of people who lived as cattle keepers (*ayar*) and hunters (*vettuvar*) and both of them occupied the *Kurinj*i area. That means the living nature of each area is determined by the environmental and geographical nature of that peculiar area⁶⁶. The tribal nature of prehistoric society was possibly argued by historians.⁶⁷ *Tinai* concept is the reflection of the nature of each geographical unit like wet, dry and mixed etc⁶⁸.

⁶⁴ H.D.Sankalia, "Beginning of Civilization in South India", in *Tamil Culture*, vol.1, No.2, Madras, 1969, p.23.

⁶⁵ Suji.K.V, op cit., p.58.

⁶⁶ K.Sivathamby, op cit., pp.112-123.

⁶⁷ T.V.Mahalingam, *South Indian Polity*, Madras university, 1955,pp.65-69. He made such kind of observations, he opined that in prehistoric time's people of South India were divided in to a number of tribes and that was mainly based up on the geography and environment of that particular area.

⁶⁸ R.Champakalakshmi,"The Study of Settlement Patterns in the Cola Period: Some Perspectives", Nandini Sinha Kapoor(ed.), *Environmental History of Early India*, Delhi, Oxford university press, 2011, pp.132-136.

But in Kerala it is very difficult to accept those kinds of *tinai* division in as such like Tamilnadu. The division like *Palai* and *Mullai* is very difficult to trace. So a settlement based up on those *Tinai* divisions is not applicable in as such.

A.Ayyappan views that Kerala came to be populated only during and after Neolithic agricultural revolutions. Primitive people avoided thick jungles. He also says that as agriculture developed, people crossed the Ghats and occupied these areas.⁶⁹

From all these arguments, it is understood that the geography and environment of each area played a crucial role in all periods of time. In all societies, at all period, man has survived through the fight with nature and had acquired better life in the ages that followed.

Anyway he says that the post-holes may indicate the possibility for the existence of habitation in that area. Post holes were found in Kerala from Anakkara, Chiramanangad etc. The post-holes are found in the surrounding areas of many megalithic monuments. The possible absence of 'so called' habitation sites and the presence of Post holes were the reasons accepted for a wooden construction for this period. Romila Thapar is of the view that the grave goods may determine the status of the people who lived at that time. Maurice Bloch viewed that the study based on the materials from the grave goods and society may reveal the social structure of that time.⁷⁰ Types of monuments and the material received from the sites indicate that technological understanding existed among the people who

⁶⁹ A.Ayyappan, *Megaliths of Kerala*,(nd), pp.54-58.

⁷⁰ S.C.Humphreys, "Introduction: Comparative perspectives on death" in S.C.Humphreys and Helen King (ed.), *Mortality and Immortality: Anthropology and Archaeology of Death*", London, Academic press, 1980, p.11.

inhabited Kerala in the pre or early historic time. We never intend to trace the beginning of human settlement from Paleolithic and Neolithic time onwards, but here like to say that the use of technologies may determined the nature of settlement on here. In this context we are forced to accept the notion of migration in wide sense. From the archaeological remains, R.N.Mehta and K.M.George say that the Carnelian beads of coastal line showed the direct presence of trade activities here.⁷¹ Similarly, the availability of Bronze suggests the arrival of copper and an alloy either tin or arsenic from other places. H.P.Ray, Gurukkal and R.Champakalakshmi say that inter regional or intraregional exchange of goods were fairly established in South India by the 3rd century BC.Possibly a group of indigenous population may lived here, but certain adoption and adaptation was happened in here and may they formed the probable settlement in here.

The iron tools and firing techniques of potters are the important changes of that time. Their total living condition is not clear to the scholars. Many of them shared various opinions regarding their living culture. Even the role of iron in megalithic burial culture also needs further enquiry. Because we received so many remains of iron in various forms and from the shapes we make certain comments like, these are tools and other one is weapons and may used for hunting or for other affairs etc. But when considering the nature of geography and its position it is feasible to say that some changes were happened in their life. Scholars have shared various opinions regarding the life of early historic people. So the possibility for a technologically superior situation existed even in those times.

⁷¹ *ibid.*, pp.15-19.

Along with the technical adoption of the people in early historic period it is feasible to think the politics behind the burial practices. It is already says that the life of early historic people is pictured with the huge burial monuments. The idea to construct huge burial monuments for the dead one is may came from outside or the growing technology may support the fulfillment of their own notions. Probably the concept like 'hero worship' has made a role in the construction of those monuments. The construction of monuments for the people who died during the time of protecting his cattle etc is clearly indicating the role of worship of heroes in that time. The references found in Tamil anthologies like Hill chiefs, *Ko*, *Mannan* etc support these kinds of notion and possibly they may spread to local people also.

The distribution of monuments is selected for understanding the settlement on the basin. The varieties of monuments like Passage Chamber Tombs, Cists, Dolmens, Dolmenoid cists, Pits, Nadukals, Kudakkal, Thoppikkal etc may indicate the nature of settlement through these structural significances. Among these, the varieties like Pits, Cists, Dolmens etc were found to be distributed widely. It may indicate that these types of burials were of the ordinary people. Like that the types like Nadukals, Toppikkals, Kudakkals etc are found to be distributed isolate. So it may indicate that these types of burials are of the outsiders or chiefs. I say this because some considered it as memorial stones of heroes. At the same time the varieties like Multiple Chambers, Dolmenoid cists etc indicate the burial of mendicants, traders etc. The variety like urn burial is another thing that probably indicates the monuments for traders and nomadic people because the urn burial did not demand more human efforts like other monuments. The cluster monuments may indicate the possibility of a

burial ground for war faring groups or a burial ground of a people's settlement. The references of war by the chief *Pazhayan* in Patittupathu support this possibility. The land occupied by *Pazhayan* is believed as 'Pazhayannur' by some historians.⁷² *Pazhayan* is considered as a local chief and he was defeated by Cheran Chenkuttuvan. Pazhayannur which lies on the basin of river Gayathri is considered as the place of this chief *Pazhayan*. The fight between Cheran Chenkuttuvan and this chief *Pazhayan*, may be the responses for this wide distribution of burial monuments in this area and it need more enquiries.

In this context it is feasible to say that our study area is notable with wide distribution of so many monuments and it may represent a burial ground for settlement groups or warfare. Champakalakshmi supports the existence of a burial ground in a bordering area of region. The geographical significances of our study area support this possibility because the boundary of a region was determined by any river, hills and forest in the earlier times. The presence of the hills on Western Ghats and river may support this possibility. It says that with the availability of grave goods and typological varieties, it is possible that many types of people belonged to there. The pit burials, Dolmens and Cists might have followed by a group of ordinary people and Nadukal, Kudakkal, Thoppikkals could be followed by another groups probably chiefs or the person with some superior position. All these support the possibility of a social gradation in that time. Like that the large burial distribution of this area may support the possibility of a camp site for various people who belonged to craftsmen groups, traders, warriors etc. The geographical significances and richness of minerals, raw materials etc support the transformation of the site in to a camp for these kinds of people.

⁷² Greeshmalatha, *Historical Geography of Valluvanad* (Unpublished Ph.D. Thesis), Department of History, University of Calicut, 2008, pp. 220-235.

THE POLITICS BEHIND THE PRACTICE OF BURIAL CULTURE

Romila Thapar in “Cultural past” mentioned about the memorial stones which are scattered here and there. She says that these stones were built for the memory of heroes who defended their village or cattle. She also says that these memorials usually found in upper lands or the vicinity of passes across hills and she opined stones were found on the rich agricultural lands. Thapar again makes an observation that when we trace the distribution pattern of the monuments; it is found that almost all stones were located on the boundary of the state or nadus. In the frontier zones the protection was safe in the hands of local chiefs. May be the monuments represented their brave death⁷³. From the references of Sangam, it was understood that a political power existed at that time. The chiefs of hills were mentioned so many times. Possibly the role of local chieftains and their efforts to defend his region may be represented through the distribution of megalithic monuments here. Tamil anthologies mentioned many local chieftains and their efforts to solve cattle and related conflicts. So it was needed to give a political attention to this burial practice too. The difference of grave goods also indicates the existence of a gradation in that society. The tracing of the origin and development of megalithic practices in South India led to the possibility of ritualistic practice of Hero-worship. Evidence regarding this practice is available from Sangam literature and archaeological remains also substantiate the erection of hero stones for various purposes. Sangam poems reveal the rise of Chieftains, their raids for plunder etc. Such raids resulted in the death of numerous warriors, to show respect towards them the practice of erecting stones existed. In Kerala,

⁷³ Romila Thapar, *Cultural pasts—Essays in early Indian history*, New Delhi, OUP, 2000 (2010), p.690.

that was being signifying the importance of a person as the Chieftain, migrant or a trader rather than any other monuments. The Chiefs or migrants might have been made quarrels for occupying the land or cattle. Possibly the erection of such kinds of monuments were made for any particular person.

The Tamil heroic poems mention that a kind of chiefdom existed here. Poems like *Puranaanuru* mentioned that *Kilar*, *Velir* and *Ventar* were the rulers of these chiefdoms. Similarly, the poems mentioned about the names of various hills as the centers of these Chiefs. *Venkatamalai*, *Kanthiramalai*, *Kollimalai*, *Kuthiramalai*, *Parambumalai*, *Pothiyilmalai*, *Ellimalai* is some of them. Among these *Elimalai* was related with Kerala, the ruler *Nannan* is popular in the history of Kerala. Sangam poems mentioned almost all chiefs were acquired the plundered property and plundering was repeatedly mentioned in Sangam literature as a brave activity of that time. The gatherings up on hills were mentioned in Sangam and pictured it as a centre for cultural and other activity at that time. The hill products were considered as an important source of transaction at that time. *Velir* and *Ventar*, the terms found in Tamil anthologies are the chiefs and they could have used elaborate monuments for their burials. Like that, the groups called *Vellalars* were the 'house holders' and some other categories like *Chiramakkal* and *Kudimakkal* were considered as ordinary people. Differences in the typology of monuments may be representing these kinds of gradation in that period.

When take references from Sangam poems it was found that the three kingdoms like Chera, Chola and Pandya also have keep their living area in hilly region. It seems that they have maintained their headquarters in a hilly region

and have maintained forts in seacoast called Muziris, Pukar and Korkai for their trading purposes. Karur, Urayur and Madurai were the head quarters in hilly regions.⁷⁴ The archaeologically rich area called Kodumanal is found to be located in near to the headquarters called Karur in Coimbatore district of Tamilnadu. If the period of burial practices is found as contemporary to the Sangam literature, it should be understood that the people who lived at that time had the clear awareness about of the use of geography. Hilly areas or the places which were not to be used for cultivation by the inhabitants were used for these purposes. So here it is understood that the life of early people might have begun from hilly areas and may gradually moved to other places. The typology of monument also support this notion, Dolmen is considered as most earliest one among the monuments and the monuments with more technical demand was developed latter in lower valleys.

Tamil anthologies mentioned the hills like *Ezhimalai*, *Kollimalai*, *Pothiyilmalai* etc as the agricultural areas and mentioned the possibilities of certain human habitation.⁷⁵ The hill products like pepper, spices, ivory etc are the items which were involved in the hill trade with foreign traders. The evidence regarding the trade with Romans was understood through the coins from Coimbatore, Eyyal, Kottayam etc. It is understood that the Romans had maintained trade relation with the southern parts of ancient Tamilakam and made exchanges through the ports of Muziris, Korkkai etc.⁷⁶

⁷⁴ M.G.S.Narayanan, "The ancient and medieval history of Kerala-Recent developments and the rational for interdisciplinary approach", in *Journal of Kerala Studies*, Dept of History, Trivandrum, University of Kerala, 1976. p. 13-20.

⁷⁵ *ibid.*, p. 21-23.

⁷⁶ *ibid.*, p.24.

The exterior trade relations were developed through the sea transporting system. Like that water is considered as the prime factor for determining the settlement of an area. The term *Ur* is considered as the prime factor for the beginning of a settlement in ancient time, which is found to be mentioned in Puram and akam songs of Ancient Tamilakam.

The geography called Ancient Tamilakam lies between the western parts of Western Ghats and the Arabian Sea, and the present Kerala was included in the geographical unit of this area. The archaeological and literary source support the position of Kerala in both foreign and internal trade in early historic period and it is necessary to oppose the arguments such as Kerala have no role in pre or early historic period.

It was believed that Kerala was comparatively different from other parts of South India and was not reachable to the inhabitants of earlier period. The dense forest nature could have compelled them to make such an opinion regarding this geographical unit. Similarly, in Sangam literature, a reference was found that, sea and mountains were the geographical boundaries of a region (PN. 343; 7-8). In some cases the forests or rivers were treated as the 'centre of resources'. Maybe it was the reason which stood behind this kind of an opinion.⁷⁷ Possibly in early historic time the foreign trade was mainly determined by forest or hill products with precious things. In that case the early historic people may take some efforts to reach there.

⁷⁷ K.S.Madhavan, "People and life activities of Western Ghats as represented in classical Tamil texts" in Mujeebu Rehman and K.S.Madhavan (ed.), *Explorations in South Indian History*, SPCS, Trivandrum, National Book Stall, 2014, p. 168.

All these have forced us to give a role to the migration of people in that period along with the local people. Some historians argued about the living practice of the burial culture. They believed that this practice still exists among some tribes like *Chola Naikas*, *Irulas* etc. The peoples who belonged to these categories perform certain death rituals which are similar to these megalithic practices and built the monuments like stone Circles, Dolmens etc. The monumental similarities helped the historians and anthropologists etc to arrive at such an argument. Scholars like Haimendorf argued that megalithic builders were Dravidian speakers.⁷⁸ But these observations also create debates among the historians who worked in this field. It is not an easy task to check the origin of any groups or people especially the people who lived in a place years back. Then, the only way is to assume that their death rituals may not be the reflection of their beliefs at the same time indicating the level of technology which they kept.

In Kerala with the absence of structured habitation remains, here trying to find out things from the remains of grave goods and its typology. But here tried to point out that why do we give so much of importance to the habitation remains of this culture. Literary sources pictured the living condition of people in huts made of clay and roof has been supported by wooden posts. Sangam literature gives so many references about the existence of mud houses with thatched roofs and floors with cow dung etc. The availability of post-holes from many parts of Kerala, also support this. May be their notion towards the concept

⁷⁸ Prof. T.Ramaswamy, "Material culture of the megalithic people", in Tamilnadu, *SIHC*, 2006, Bangalore, p.413.

of 'housing' is different one. For understanding the material culture, it is better to refer the available sources of that period. When taking the references from Sangam poems, it clearly supported the movement of people to various places for earning their livelihood, similarly, from these anthologies, we get strong evidence regarding the earlier settlement of people up on the hills and later they moved to wet land areas.⁷⁹We can hope that through the understanding of the grave goods varieties and typological variations, we are able to reveal the possible material culture of that time. In Kerala the area under the basin of river Bharathapuzha is considered as important due to its varieties of monumental distributions. The river basin has partially covered three districts of present Kerala. This area has received importance not only with the distribution of monuments, but also due to the mixed culture of Kerala. The Palakkad pass also has a role in the moulding the mixed culture in here. The presence of trade groups from other parts of South India collectively on the basin of Bharathapuzha also supports the possibilities of movement of people for various purposes. (i.e., large scale settlements of Tamil, Telegu traders will be found on the river valleys of Bharathapuzha).⁸⁰The geographical position of the Bharathapuzha basin was an important one and the presence of small hills and Ghats in Palakkad pass also have played a role in the huge distribution of monuments and its rich grave goods. The similarity with other parts of the world also may support the human involvements in those periods. The river basin was rich with minerals and the basin showed geographical similarities with the

⁷⁹ Dr. V. Selvakumar, op cit., pp. 46-58.

⁸⁰ In field work I met so many crafts men groups and traders who settled here from so many years back.

Coimbatore regions of Tamilnadu. May be the availability of minerals also played a role in the wide distribution of monuments in here. In this situation take the case of monuments of Bharathapuzha as a sample and tried to understand the material culture through the artifacts of that period. For that take the craftsmen groups who settled here for an ethno archaeological analyzing.

SUJATHA. K.S. “FORMATION OF MATERIAL CULTURE IN THE BHARATHAPUZHA BASIN DURING THE PRE-HISTORIC AND EARLY HISTORIC PERIOD – A STUDY OF MEGALITHIC BURIALS”. THESIS. DEPARTMENT OF HISTORY, UNIVERSITY OF CALICUT, 2018.

Chapter 4

ETHNO-ARCHAEOLOGICAL STUDY OF GAYATHRIPUZHA BASIN

A detailed study of megalithic monuments with the application of new trends in History and Archaeology is necessary in Kerala for revealing the rich material background of pre and early historic periods. But no such enquiries were conducted to reveal the material culture of the prehistoric time of this region. Unlike previous years, many efforts were made in the recent years from the side of the State Archaeological Department to find out the megalithic monuments of Kerala. The existing historical works of Kerala also do not take such kind of initiatives in any sense. Most of the works are engaged with the issues related to the time of Second Chera kingdom and the upcoming developments of temples and Brahmanisation.

In this context such an effort is made here with the evidence of the burial monuments of Bharathapuzha region; especially Gayathripuzha area for enquiring the possibilities of material culture formation in pre and early historic periods. The river valley covered a vast area and it felt difficult to cover the monuments of whole river basin. The river area was rich with the distribution of monuments from the place where the river was originated and it continued till the area where river get joined on the Arabian sea. The difference was seen only on the typology of the monuments and other things like grave goods, purpose of the monuments all are seen the same. Actually those rich distributions of monuments are the prime reason for selecting this area in Kerala for this kind of

a study. For such an attempt the information from burial monuments and its grave goods and evidences from field works are used and tried to impose certain ethno archaeological enquiries of the region along with the available literary sources. Here the technology, culture, belief, rituals etc are checked along with the megalithic distribution pattern in that area.

The material nature of a monument can be understood through its remains. Like that a look up on the surrounding nature also helps us to understand the possibilities of the development of human beings at that time. The period called Megalithic culture was found to be associated with the artifacts made up on iron and the utensils and ornaments made with other metals like bronze, copper and gold were rarely found. The limited distribution of metals other than iron was probably due to the unavailability of this metal in South India. The metals like Bronze, Copper etc revealed the possibilities of import of the metals from a distant place. The easy availability and hardness of the metal could have prompted the people to use this iron in a wide manner. It is generally argued that the wide distribution of iron was not making a drastic change in the social condition of the people at that time. It may be true, but it seems that, the wide use of iron at least helped to expand the boundary of geographical area which was used by man for his activities. The wide distribution of monuments in almost all parts of south India with rich iron grave goods simply prompted us to believe that the people who lived at that time had used the heavy forest area also for their different purposes. The use of this hard metal may have helped the people to clear the thick vegetated areas and expanded their activities in to those areas. This geographical expansion sometimes helped the beginning of

agriculture at least in a very limited level. Like that the huge and different types of tools and weapons received from the graves indicate the involvement of human beings with nature may be for satisfying his needs. Like that the use of more and more regions helped the expansion of production process of that time, and it may have lead to the surplus production gradually.

Such an observation is made here because there is no logic in thinking that a society can immediately turned in to a wet land production community. The efforts began to start from hundreds of years ago. The interference of human beings up on the usual environment was the probable reason for the changes in existing environment. The Copper plate of Thiruvalla on 9th century AD was the first source which mentioned about the coming of Brahmins and the beginning of wetland cultivation. These Brahmins were considered as a group of migrants and they have kept certain new knowledge about the changes in nature and cosmos. Possibly with the knowledge of the changes in nature, they could have began to adjust the period of cultivation and this may have resulted in the systematic improvement on agriculture. Probably such kind of agriculture was not found in the early historic period or in the other sense they were not interested in such kinds of elaborate production process. The grave goods varieties supported the possibility for the beginning of small scale agriculture from that period itself. The typologies of the monuments along with its diverse nature of grave goods lead us to the possibility of the existence of different technologies in that period itself. The river basin was rich with the distribution of burial monuments and its grave goods. Grave goods mainly included iron tools, weapons and potteries. The wide distribution of artifacts had raised the

possibility for the presence of skilled people in these regions. The availability of iron ores from various parts of Kerala and other parts of South India supported the existence of a rich material background in that period. Francis Buchanan mentioned Kollengode, a site near Palakkad as the area where iron ore is available; he locates four forges with iron ore¹.

Based up on these observations an attempt is made here to trace the craft men groups who settled at the river bank of Gayathri as a case study. Information was collected from the craftsmen groups present here through interviews and checked whether any kind of similarities were found up on the technology or the products made by them today with the artifacts available from the sites through excavations or explorations. There is a possibility of a little confusion in this kind of regressive study that faced some problems especially when trying to connect the periods of two extremes. Such kind of an effort was seen before from the side of Shereen Ratnagar.² Connecting the information received from the present period with the past and its activities are the general method used in this study. But this study is never going to depend the information collected through ethno archaeological study only for tracing the life of the past. Here tried to correlate the source of literature, archaeology, anthropology, geography, ethno-archaeology etc for a common purpose.

¹ Francis Buchanan, *A Journey from Madras- through the Countries of Mysore, Canara and Malabar vol.II*, New Delhi, Asian Educational Services, 1988, p.386.

² Shereen Ratnagar, *Makers and Shapers- Early Indian Technology in the Home, Village and Urban Workshop*, New Delhi Tulika Books, 2007. This work concentrates up on the living situation of the people in various parts of South Asia because from Neolithic time onwards there found certain changes in society in the form of movement of people in to sedentary ways of living and they began to use certain technologies, living style etc. Here she concentrates on the life of potters who settled now and tries to trace the technological similarities through a regressive method.

The grave goods never directly mention about the living situation of the inhabitants of that period. But it indirectly says something about the activities of then people to the scholars who work in this field. Agriculture in primitive society is found to be in two types i.e., Hill cultivation and Plain agriculture. The method like hilly cultivation is found more common in most parts of South India. It is found in the very recent time also that the people belonging to tribal groups followed this kind of cultivation. So the practice like construction of burial monument could be treated as the reflection of their beliefs and culture. This study covered more up on the area under river Bharathapuzha in present Kerala and has not included the Coimbatore basin. Along with this, it concentrates more up on the Gayathripuzha basin, which includes Thalappilli taluk in Thrissur district. This area was selected due to the presence of large varieties of monuments in here.

Bharathapuzha basin

The area of present study is covered the river basin of Bharatha puzha especially one of its tributaries Gayathripuzha. It originates from the Anamalai hills of Western Ghats sharing the border of Kerala and Tamilnadu. The river Bharathapuzha has got its name from the epics Mahabharata. Bharthapuzha lies between 10⁰15 to 10⁰40 North latitudes and 76⁰00 to 76⁰35 east longitude and covers Malappuram, Thrissur and Palakkad districts of Kerala and Coimbatore district in Tamilnadu. The river Bharathpuzha joins with sea at Ponnani and it is one of the old ports and is a major trade center in Malabar. Bharathapuzha covered the middle portion of Kerala like Palakkad, Parali, Killikurissi Mangalam, Alathur, Pazhayannur, Thiruvilwamala, Ottapalam, Shoranur,

Pattambi, Thrithala, Thiruvegapura, Kudallur, Pallipuram and Kumbidi and then joined with Sea at Ponnani in Malappuram. Bharathapuzha along with Bhavani and Siruvani rivers make the area more fertile and suitable for settlement.³ The district has a tropical climate with an oppressive hot season. The presence of huge monuments supports the presence of human beings from ancient times onwards. The largest river has a length of 209 KM and covers a large basin of 6186 KM². The main tributaries of the Bharathapuzha are Thuthapuzha, Gayathripuzha, Kalpathi puzha, Kannadi puzha and Tirur puzha. Among these Gayathri puzha is the largest one. The settlements that developed on the shores of river Pamba, Bharathapuzha, Valappattanam and Chaliyar are said to be the early river valley agricultural settlements in Kerala.⁴ This gap in Western Ghats is considered to play the role of a bridge to connect the people of Ancient Tamilakam in all ways.⁵ The use of this Ghats for cultural transactions was found even the historic period also.

The tributaries of the rivers have earned different names in various localities. Gayathripuzha was otherwise called *Cheerakuzhi puzha* at Pazhayannur-Thiruvilwamala region. The river Gayathri puzha has five tributaries namely *Mangalam river, Ayalur river, Vandazhi river, Meenkara River and Chulliyar*. *Gayathripuzha also originate from Anamalai hills and passes through Kollengode, (Chittoor taluk) Nenmara,(Chittoor taluk) Alathur,(Alathur taluk) Padur,(Alathur taluk) and Pazhayannur (Thalappilli taluk) before joining the*

³ Dr. C.K. Kareem, *Kerala District Gazateers- Palghat*, Ernakulam, The Government Press, 1976, pp. 2, 5, 7-10.

⁴ K.Rajan, "Ivide Charithram Ghaneebhavichu Kidakkunnu" (*mal*) in *Samakalika Malayalam Weekly*, 2011, September 9, p.248.

⁵ K.N. Ganesh, *State Formation in Kerala-A Critical Overview*, Banglore, ICHR, 2010, pp.34-35.

river *Bharathapuzha at Mayannur*. The detailed lists of megalithic sites in this area are given later. The course of Gayathrippuzha covers three taluks of Kerala which are in Thrissur and Palakkad district, The places under Thalappilly taluk, especially the places where including on the basin of Gayathripuzha has attracted the attention of archaeologically interested people in Kerala. Among the villages under Thalappilly taluk, the villages like *Chelakkara*⁶, *Pulakod*⁷, *Pazhayannur*⁸, *Elanadu*⁹, *Vennur*¹⁰, *Mayannur*¹¹, *Vadakkethara*¹², *Kondazhy*¹³ and *Thiruvilwamala*¹⁴ are considered to be notable with the distribution of monuments and these places are found to be lying on the basin of river Gayathri. On taking the megalithic map of Kerala; these places have an important role.

Rivers definitely played a crucial role in every society because the primary need for water by man was forced them to move as parallel to the course of rivers and make the mark of their life in the bank of that river and nearby areas. The Geo-morphological studies of pre-historical South India have supported the movement of different groups of people along the rivers with various purposes¹⁵. Explorations on almost all river valleys or its basin resulted in the discovery of a number of pre-historic and early historic monuments here

⁶ NO.61, Revenue settlement Thalappilly taluk, Cochin state, V.K.Raman Menon (the settlement peshkar), 1084 (Malayalam Era). Ernakulam Regional Archives.

⁷ NO.66, *ibid.*

⁸ NO.67, *ibid.*

⁹ NO.64, *ibid.*

¹⁰ NO.65, *ibid.*

¹¹ NO.71, *ibid.*

¹² NO.68, *ibid.*

¹³ NO.70, *ibid.*

¹⁴ NO.73, *ibid.*

¹⁵ V.Sudersan, *Geomorphology and Pre-history of South India*, Delhi, B.R. Publishing Corporation, 1979, pp.126-134.

also the case was same. Bharathapuzha basin also was notable due to the availability of huge monuments and its rich grave goods. But I am not going to trace the development of a settlement on the course of river Bharathapuzha in this study, but may put certain indications which throw light on to that possibility. Certain enquiries are made here based upon the distribution of grave goods. Taking the distribution of monuments as an evidence for the human involvement in those periods and through the field works it is observed that most of the monumental distributions were up on the hilly areas near the river basin.

Archaeological Distribution of Bharathapuzha Basin

The area which comes under the basin of river Bharathapuzha is mentioned earlier. The available evidence shows that the region, especially the area under present Palakkad is comprised of a large variety of megalithic monuments. The geographical peculiarity may have played an important role in this. But more excavations are not carried out; only some isolated attempts have been made. Among the river basins in some area we found clustered or compact remains in the Palakkad gap area and the area under Thalappilli taluk in Thrissur district is also notable for this. The valleys of hills near the Bharathapuzha basin, Palakkad pass; the valleys of Ayilur, Vallicode, Kizhakkanchery etc are notable with the distribution of monuments in these areas.¹⁶

So much of explorations are carried on the various parts of Palakkad district. Shinu A. Abraham focused her study on Palakkad gap area and traced sixteen groups of discrete megalithic clusters in this area. It was an

¹⁶ K.Rajan, "Iron Age –Early Historic Burial Sites Old Palakkad District", in IHC, Kolkatta- Malda session, 2011, p.1038.

anthropological enquiry and she locates so much of sites in Palakkad district. The places like Pallateri and Pallassana are listed as containing around fifty discrete megaliths and were scattered across an area of five to six hectares. The places called Konnanpara, and Elavancheri also listed as one important site which contained huge clusters. One significant thing is that most of these sites are located close to the Bhrathapuzha or one of its tributaries.¹⁷ In her paper Darsana made a list about an approximate number of burial sites in Kerala around 164 sites are reported from Palakkad district, but it is not an exact number so many monuments have been explored here in day by day.¹⁸

The geographical significances due to the presence of this large river and the contact happened through the Western Ghats may be the reasons for the large distribution of burial monuments in these areas. Due to the abundant distribution of monuments it was not an easy task to trace the distribution pattern of the monuments in this region. The distribution of these monuments were found differed, which in some places found the monuments were scattered and in some places found the monuments were distributed as clusters or fully isolated in nature. Topographically, the river basin is comprised with both laterite and granite stones. Among the river basin, Palakkad area was found to be distributed with more granite than the basin which comes under Thrissur and Malappuram districts. When reaching to the basin in Thalappilly taluk found a change from granite to laterite. This change was seen up on the nature of typology of the

¹⁷ Shinu.A, Abraham, "Applying Anthropological Models of social complexity of Early Tamilakam-The Palghat gap survey" in the *Journal of the centre for heritage studies Vol.I*, Thrippunithura, 2004, p.4.

¹⁸ S.B.Darsana, "Megalithic Burials of Iron Age-Early Historic Kerala An Over View", in *Man and Environment xxxv(2)*,2010, p.101.

monument. In Palakkad found monuments with granite and when the monument moved to Chiramanangad, Eyyal, and Ariyannur of the basin was made with laterite. Similarly, the construction of monuments with both of these was found there. Probably the construction of these monuments depended by the availability of this material which was according to the geography of each area. Cists, Dolmens, Dolmenoid cists, Urns, Cist with stone circles, menhirs etc are found to be distributed in plenty with in this area of study. Above that the variety of monuments like umbrella stones, cap stones, multiple hood stones and Menhirs are found in this riverside area.¹⁹ The Thalappilli taluk was notable with the rare monuments like Umbrella stones and Cap stones in Kerala and these monuments were made out of Laterite stones. Another importance of the basin of Bharathapuzha is the presence of large important excavated sites of Kerala been in this region. The other side of the basin, including the region under Palakkad district of Kerala is not to be exempted from the megalithic map of the basin because in almost all parts at least one isolated monument was found. Among the basin, the types like Kodakkals and Topikkals were very rarely found²⁰. One Toppikkal was reported from Ongallur in Ottappalam taluk. The types like Granite Rubbles were reported from Mannarkkad region and also one laterite cave also reported from Karimala in Perinthalmanna Taluk.²¹ The monuments like Cap stones, Umbrella stones, Rock cut caves, Dolmens etc needed high

¹⁹ Chandrasekharan, *Survey of antiquarian Remains-Thrissur district*. (Unpublished), ASI southern circle-Thrissur, Form -D, 1969.

²⁰ Bharathapuzha started from Anamalai in Tamilnadu and at Palakkad it reach in Kerala and in that area mainly found cist burials with granite orthostats when it flows to western side it also reach lowland. The types like Kodakkal, topikkals and urn burials have started to see from in this area onwards.

²¹ Chandrasekharan, *Survey of Autiquarian Remains- Palakkad districts*, ASI, Thrissur circle-Form D, 1969, pp.23-36.

technical skills and more human effort to complete this. This was another reason to enquire the possibility of human presence behind it.

The spread of human beings in to this narrow strip of land called Kerala is considered as important. The role of Palakkad gap is needed to consider as equal with its vast coastal line for the pre and early history of Kerala. Many scholars in the field of History, Geography, Geology and some Cognitive archeologists and Ethno archeologists have been discussing the role of Palakkad gap for these kinds of wide distributions of remains. The interesting thing about Palakkad gap is that it is not a small opening it has a width of 30 K.M. So a movement of population from various places from East to the West and vice versa was very easy. The origin of the gap is an old issue and has not been fully solved yet. Jacob and Narayanaswami have argued that it was due to the erosion of two opposite flowing streams at the time of the block faulting of the West Coast. Two other geologists namely Arogyaswami and Ahmed put forward a view that the gap was caused by a major faulting along its southern edge.²² So whatever the reason, one thing is sure that 30 K.M. wide gap is a major break within Western Ghats. The gap connects Kerala with the rest of the world through Tamilnadu. However, the geological and historical importance of the gap has not been sufficiently appreciated and no scientific investigations were undertaken in this area. It is impossible to reject the possibility of cultural interaction occurred here. The trade contacts through the gap of Palakad which connects Muziris and Kaveripattanam is accepted by the scholars.²³ In the preliminary stage of my field work, it was

²² K. Soman, *Geology of Kerala*, Trivandrum, Centre for Earth Science Studies, March, 1980, p.33.

²³ K.N. Ganesh, *Keralathinte Innalekal (mal)*, Trivandrum, Department of cultural publications, 1997(1990), pp.45-86.

understood that the sites are located on both hills and river basins. The fertile and rich soil of the river banks could have attracted the earlier people to settle on the bank of the river or nearby areas. Like that the vegetated area may have given a lot of hill products and we have got evidences about the trade of hill products with Rome and other foreign countries from foreign literary sources and other archaeological works. They were considerate about the things like spices especially Pepper, Fine Muslins, (Masulipattanam), Cotton (Deccan), Perfumes, Pearls and mainly Beryl as precious. The Beryl collected from Coimbatore (Padiyur) region is considered as most pure and precious in the world. So many Roman coins were reported from Coimbatore district of Tamilnadu. Similarly, Eyyal and Kodungallur in Kerala were the other important sites where the remains of Roman objects were reported.²⁴

Typology found in the river basin

Generally the typology of most of the burials is determined by the surface visibility of that monument. In some cases it was changed when the excavation is conducted. The scholars like V.D. Krishnaswami, Satyamurthi etc have made some proposals regarding this. The surface visibility along with its raw materials may have helped to determine the typology and its similarities with other parts etc. The geological processes and terrain type might have played a crucial role in forming the typology of the monuments.²⁵

Kudakkals and Thoppikkals, the unique megalithic structures of Kerala are considered as the reflection of local customs at that particular place. Eyyal

²⁴ Robert Sewell, "Roman Coins Found in India", in *Journal of the Royal Asiatic Society*, October, 1904, pp.591-600.

²⁵ K.Soman, op cit., pp.31-32.

and Chiramanagad of Thalappilli taluk were considered as the centre of Kudakkal and Toppikkal in Kerala. The Kodakkals and Toppikkals are made with hard laterite stones and the areas of these monuments were seen as lateritic in nature.²⁶ R.S. Mohanty and V.Selvakumar also agreed the role of geographic features as well as cultural choice in shaping the type of burial architecture.²⁷

The General typology of the river basin can give below as a table:-

Type	Nature	Places	Terrain	Visibility
I	Cists	Thrissur & Palakkad area (See more sites in Palakkad district of the basin)	Granite	Most of them are invisible in nature
II	Dolmens	Thrissur & Palakkad area (See more sites in Palakkad district of the basin)	Granite	Mostly visible, but its burial is not visible
III	Kodakkal, Toppikkal, Hood stones	Chiramanangad, Eyyal, Ongallur	Laterite	Clearly visible above the land, but its burial is invisible
IV	Rock-cut caves	More on Thalappilly taluk area, Eyyal, Chelakkara, Kadukkassery	Laterite	Invisible
V	Urn-burials	Kanjimedu, Knjirakunnu, Elanadu in Thalappilli taluk and site like Alathur in Palakkaad	Laterite	Invisible

Source: List of reported megalithic sites in Kerala, by Dr. Rajesh S.V (Assistant Prof., Dept. of Archaeology, Kerala University)

This table shows a general distribution of monuments in river basin. It is found in some areas that the concentration of any typical monument is in huge number. For example Sewell numbered 600 Menhirs from Kavasseri (Alathur-

²⁶ T.V. Mahalingam, *Studies in South Indian Archaeology Epigraphy Architecture and Sculptures*, Madras, The Archeological Society of India (publishers) 1978, p.52.

²⁷ D.P. Agrawal and J.S. Kharakwal, *Bronze and Iron Ages of South Asia*, New Delhi, Aryan Books International, 2003, p.238.

taluk) only.²⁸ It is mostly accepted that Dolmenoid cists are the typical megaliths of the Palakkad region as they were close to hills.²⁹

It is already said that some monuments have needed more labour power and the reason behind the construction of such monuments still has remained unknown. However, the technological skills by the communities stood as a reality. This kind of thoughts may prompt us to make an ethno archaeological enquiry in this area. The enquiry on the basin of river results in the finding of certain craftsmen communities present here. These craftsmen generally claimed the lineage of so many years and shared some stories regarding their origin. They showed that the thread of that particular technology was possibly shared through generations.

Cists and Dolmenoid Cists are the mostly distributed monument found throughout the basin of river Bharathapuzha. These areas are covered with rocks and it was very easy to cut the stones from these rocks and this could be the reason. Typological distribution of the site was done from the time of Robert Sewell, William Logan, and Colin Mackenzie and then the effort was undertaken by Chandrasekharan and Raman Namboothiri as the representatives of Archaeological survey of India. But no serious studies were undertaken from the side of government or any other agency.

The grave goods of the monuments supported the possibility of the development of a technically oriented society that inhabited there at that period itself. The group of technically advanced people may have prevailed here at that

²⁸ V.V.K. Valath, *Keralathile Sthala Charithrangal-Palghat district (mal)*, Thrissur, Kerala Sahithya Accademy, 2005 (1986), p.183.

²⁹ K.K. Subbaya, *Archeology of Coorg with Special Reference to Megaliths*, Mysore, Geetha Book House Publishers, 1978, p.7.

time. A technically advanced group of people like stone cutters, iron workers, potters etc might have made these monuments a real one. It is found that all societies were undergoing through various stages and after completing one stage, they entered to the next with more advanced steps. Like that, the people before Megalithic period were buried their body with in their habitation area itself or just they throw the body in open area. But latter we found they began to construct separate monument in a place, was the indication for an advanced development in that period. The use of varieties of iron tools and weapons was the main attraction of this period.³⁰ The study of material culture of with the use of ethnographic methods may reveal the life of pre historic peoples.

No	Places	Grave goods		
		Potteries	Metal artifacts	Beads
1	Pazhayannur	BRW, RW, BW	Iron tools and weapons	Etched and Unetched Carnelian, agate, crystal, Cherty jasper, Felspar
2	Thiruvilwamala	BRW, RCPW	Iron & Bronze	Carneelian, crystal
3	Machad	BRW, RW, BW	Iron tools and weapons	Etched and Unetched Carnelian, agate, crystal, Cherty jasper, Felspar
4	Chiramanangad	BRW, RCPW	Iron artifacts	Crystal, agate
5	Eyyal	BRW	Iron artifacts	Carnelian, Agte, Crystal
6	Anakkara	BRW, RCPW	Iron artifacts	Carnelian
7	Porkkalam	BRW, RW	Iron artifacts	Carnelian, Crystal

Source: From the site Excavation reports

³⁰ Lee Hoen Jai, *Megalithic monuments in Asia*, Delhi, Sharada publishing house, 2012, pp.120-132.

Excavated sites of the River Basin and its artifacts

Bharathapuzha basin was filled with so much of burial monuments but only a few sites can be excavated scientifically and among these only a few reports were published. The sites like Thiruvilwamala (Govinda Menon 1937), Anakkara (Gurukkal 2009), Porkalam (Thapar 1948), Pazhayannur (George and Mehta 1978), Machad (George and Mehta 1978), Chiramangad (ASI, 1990) Eyyal, Kattakambal, Kakkad, Kandanassry all were included in the basins of Bharathapuzha.³¹

Burial artifacts mainly include pottery, iron implements and tools and sometimes found metals other than iron within the graves. During the pre-independence phase, K. Govinda Menon conducted excavations in a Cist burial at Thruvilwamala area (at Thrissur) and get many fragments of pottery and bronze objects from here. Bronze was not to locally available, it indicates the foreign contacts of the people who lived at that time. Porkkalam is another site, Urn burials are excavated from here. The urn was found in a circle of dressed laterite blocks and a granite capstone was present in the centre. The area was lateritic, so the granite must have been imported from the neighboring area.³² This also showed the efforts of human beings behind the making of a monument at that time.

The place Thiruvilwamala lies on the left bank of the Bharathapuzha River. Though the place is rocky, there is no scarcity of water and the soil is lateritic in nature. The places like Pazhayannur and Thiruvilwamala are two villages of the basin and have situated only below 10 K.M. distance with each other and both sites are located within a small hilly region.³³

³¹ S.B.Darsana, op cit., pp.104-105.

³² B.K Thapar, "Porkalam-1948: Excavation of a megalithic burial", in *AI*, Bulletin of A.S.I.NO.8, 1952, pp. 2-3.

³³ V.V.K Valath, *Keralathile sthala charithrangal- Thrissur district* (mal), Thrissur, Kerala Sahithya Academy, 2003, (1981), p.218.

Chiramanangad, is another nearby site has been excavated in 1990 is notable one with the distribution of typological varieties like Multiple Hood stone, Hood stone, Urn burials, Toppikkals and Kodakkals. Apart from the excavated monuments, there found so many sites which were scattered among the rock-cut caves in the vicinity of the temple pond of Kurinchur Vishnu temple and some remains of Menhirs etc. Cut marks, some holes like postholes have been found in the vicinity of the burial site. The local people believe that *Kodakkal parambu* of Chiramanangad was used by the people of *Kurinchur mana* (Homes of Brahmins) as their burial ground. The descendants of this *mana* have shifted from here, so we don't get any authentic information for this view.³⁴ Geographically this area is suited for a settlement as it contains plenty of water sources and the soil is found to be suited for the cultivation of paddy. Large area of this location was found to be used for cultivating paddy. This *Kodakkal parambu* is also located in a lateritic area, may be that was the reason for the construction of lateritic monuments here.

Pazhayannur and Machad are two other sites, where scientific excavations were conducted and reports were published. Both these places come under the division of two forest ranges of Machad and Elanad, in Talappilli taluk, Thrissur District. The excavation of Pazhayannur was carried out at a place called '*Nadappakundu*' on the top of a hill with its major axis in the north-south direction. They used granite stones to make stone circles, and monuments are scattered in nature. Five monuments were found in Machad including stone circles and urn burials. The stones are undressed laterite blocks of different size and shape. The availability of raw materials might have played a crucial role in forming the burial types. Laterite stones were used in this site and the area also is

³⁴ Fieldwork conducted by the writer and personal interaction with local people.

a lateritic one. The differences are seen only on the visibility of the monument and the grave goods are seems similar to the monuments of other sites.

Scientific analysis of the metal objects was conducted at the sites of Thiruvilwamala and Pazhayannur. Only some reports have been published by the authorized agencies from the very few excavated sites and among them, the RCPW pottery from Thiruvilwamala was notable. The RCPW were also reported from the places like Anakkara, Chiramanangad, Umichipoyil etc.³⁵ These similarities showed a cross cultural link with all these sites of Kerala.

Most of the potteries available from the burials are wheel made in nature. In the case of Pyriform Urn and the four legged vases its lower part were sometimes made with hand. We get BRW, RW, BW varieties from Pazhayannur and Machad. Iron tools, objects and implements also are available to us from these sites. We got iron implements from Porkkalam other than weapons and this indicates the possibility for primitive agriculturism than pastoralism. The iron objects like daggers, chisels, hooks, nails and one rod like objects etc were reported from Pazhayannur and Machad. The similar type of chisels were reported from Porkalam, Tagalghat and Khapa in Karnataka. Many opinions exist regarding the source of iron in Kerala. But the iron analysis conducted at Pazhayannur and Machad indicates that it was more advanced and shows 99.62% purity and the iron tools with 99% purity were found from Tagalghat and Khapa. So Leshnik argued that the metal proportions of Kerala sites and Adichanellur are not very different, only slight variations are found, and it may propose the chance for same source.³⁶ But we cannot accept this argument as a final word because in Kerala the iron ore

³⁵ S.B. Darsana, op cit., p.111.

³⁶ L.S. Leshnik, *South Indian Megalithic Burials -the Pandookal complex*, Franz Steiner Veriag Gmbh Wiesbaden, 1997, pp. 84, 87.

was available from a number of places. Like that the lids received from Machad, Pazhayannur, Porkkalam and Eyyal seems as similar with Chingleput.³⁷ The iron of Kerala was found to be kept its purity as rich and was found to be similar with the iron of Karnataka, Tamilnadu etc. Apart from iron many other metals also available to us. We received bronze bowls from Thiruvilwamala, but it differs in composition from bronze discovered at Adichanellur. The archaeologist conducted chemical analysis and found the content of copper 86.78%, tin 12.34%, antimony 0.49% and iron 0.36%. It indicates that the source and metallurgy of bronze in Kerala and Tamilnadu are totally different and at the same time shows much similarity in some cases.³⁸ Other important grave goods that we have got are beads, precious or semi-precious in nature. The etched and unetched carnelian, agate, crystal, cherty jasper, and felspar beads have been found from Machad and Pazhayannur. We get carnelian from Porkkalam and Anakkara. It also leads to the possibility of earlier contact with Western India and Possibly Gujarat. Eyyal was another site from where we get more beads. Very recently we have got the evidence regarding the bead industry from Pattanam. Like that large varieties of beads were found to be distributed in most of the burial monuments in Kerala. Most of the beads were not made with the locally available material. Even the monuments of hills were filled with such kind of precious and semi-precious beads. Probably the exchange of precious beads for hill products was the reason behind it. Unlike other parts of South India, not only from the river basin of Bharathapuzha, but also from other parts of Kerala found the burial monuments as secondary

³⁷ R.N. Mehta K.M. George, *Megalithic of Machad and Pazhayannur Talappilli taluk, Thrissur District*, Vadodara, M.S. University of Baroda, 1978, pp. 3-4, 17.

³⁸ Ajitkumar. A, "A Socio-Economic Study of the Megalithic in Kerala" in K.K.Kusuman (ed), '*Issues in Kerala Historiography*', International Centre for Kerala Studies, Kerala University, 2003.p.55.

burials and only fragments of bones were received from there. It may lead to a conclusion that people practiced secondary burial systems here and do not know the reason behind it. In Kerala there is a possibility that the heavy monsoon may have ruined the remains of bones. From these it is understood that megalithic culture was not an independently developed one and there is a possibility of the maintenance of some kind of relations with other parts of the world.

The presence of large number of monuments in river basin is considered as significant, because this area was lying as close to the opening of the Palakkad gap. The explored sites of Pazhayannur and Thiruvilwamala has been lying almost 25 km distance from Chiramanangad, the centre of Kudakkals and Toppikkals. But the types of monuments like Kudakkal and Toppikkal are not generally found from Palakkad District except some places like Ongallur and Anakkara. We do not know the reason for the absence of Kodakkals and umbrella stones in the eastern part of Kerala in particular. The raw material for making the monument may not be available in plenty there. It was a certain assumption; apart from this, we do not know the facts like beliefs, rituals etc. It may be because of the practitioners of cist burial culture are not from same background as the makers of Kudakkal and Toppikkal.

EXPLORATIONS IN THE BASIN OF GAYATHRIPUZHA

Many sites were explored for this study which was mainly located on the basin of river Gayathripuzha. The river system is the uniqueness of Kerala, may be the availability of Monsoon has played a well role in determining the life of its people in early time onwards. We all know that the course of river Bharathapuzha has a significant role in the creation of geography of Kerala. Geographically, the

area of Bharathapuzha is notable with low, middle and highlands. It was a thick vegetation area; many small hills were found on the bank of river which is now under reserve forest of Government. From the field work it is understood that so many burials were seen as clusters up on these small hills.

Like that a list of varieties of monuments was located in this area and all comprised grave goods which was similar to other parts of South India. These technological varieties and grave goods were prompted to enquire the material background of this basin. We get iron and other artifacts with fine and good technology from the excavated sites of this area. The site called Pazhayannur is important due to the quality of its iron artifacts.³⁹ Dealing with the case of craft men and other communities of skilled labour may help us to make a picture regarding the settled people at that time. Iron tools and implements showed that it was widely used by them at that time. The purposes of these implements were seen as vague, because the evidences about the practice of agriculture in wide sense are not received yet. The finding of large number of pre-historic posthole sites in the Gayathri puzha valley in Palakkad by V. Sanal Kumar is notable one. He locates it on the foothills of Thenmala of the Western Ghats in the Palakkad gap zone. Along with this he argued it as an indication of old human settlement. He says that these post holes were included in the Neolithic age, the same was found on the other important archaeological sites like Nagarjuna konda, Brahmagiri etc. He observes that the mountain valley, granite hillocks, medium temperature, medium rain fall, rivers, availability of hill products and the presence of Palakkad gap etc encouraged the pre-historic people to come and

³⁹ K.M.George and M.N.Roy, op cit., p.24.

settle here.⁴⁰ The orientations of both hills and river are notable for the development of a prehistoric society. So the further findings in these areas may help us to trace and check these possibilities. Major areas on the river basin are found hilly, even though the tributaries of river make the area very rich. Paddy fields are found on the slope of hills. Our region is covered with thick forests. Now most of the areas come under the Forest department of Kerala. Interestingly, from most of the sites even up on the hills also we get beads and metals which are not locally available. It may indicate the possibilities of mutual contacts and movements. But the absence of pre-historic habitation site was raised by people to object the possibility of a settlement here. Now the area was covered with the settlement of various communities like potters, blacksmiths, masons etc largely in these areas. Like that the communities like *Tamil Chettiyar* who were involved with trade and migrated from other parts of South India also found largely in here. It possibly support the migration of people to this area, may be through the Palakkad gap in Western Ghats.

That means to understand material culture we think a detailed outlook is necessary. Shereen Ratnagar says that a study about contemporary cultural practices is necessary for a better understanding of any archaeological remains or record⁴¹.

For understanding the issues in its material context, it is necessary to go through the types of region and its landscape rather than the typological analysis of the monuments. Our region is found as notable with the chains of hills with

⁴⁰ V.Sanal Kumar, "Pre-historic post-hole sites unearthed in Palakkad" in *Hindu*, January 13, 2011.

⁴¹ Shereen Ratnagar, "Approaches to the study of ancient technology" in Sabhyasachi Battacharya (ed.), *Approaches to History -Essays in Indian historiography*, New Delhi, ICHR, 2011, p.66.

different kinds of rocks. When our study in this area was started, it has found some already excavated sites like Pazhayannur and Thiruvillwamala. But from my field studies it is understood that there are so many sites which are hitherto unknown to the world. The facts received from exploration were rectified only with the information from excavated site.

One explored site called Kayapoovam (Pazhayannur panchayath - Thrissur district) with in a reserve forest is notable one. Dolmens are largely visible in this area; another site explored by us, 'Vellarkulam' (on same punchayath) is very near to this site. Here its geography needs to be noted because all these monuments were located in a high or hilly area. Most of the monuments were found up on the top of big granite rocks, the stones used for the construction is same in the surrounding areas. Many Dolmens and Cists are found scattered here and there. All these Dolmens have been surrounded by circles of granite stones and some deposits of soil which may be from outside were seen within the dolmen on the top of the hill. But in the memory of local people it was a barren land and they have some feeling of fear about these monuments, they called it as '*Nannangadis*'. But all monuments were seen as destroyed due to the involvement of human beings.

Exploration Details

Location (1): Vellarkulam

This site was in 10⁰41' 32.3' latitude and 76⁰24' 23.9' longitude. The monument was on the top of a hill is about 5 km north of Pazhayannur, i.e., in the Pazhayannur- Thrissur road. The site is surrounded by vast hills on all the sides. Now the site is under forest department and they have plant Accasia and Cashew nut trees where it was heavily forested area before. The place *Vellarkulam* is otherwise known as *punam*.

The monument type is dolmen or Dolmenoid Cists with its capstone. The area, where the dolmens are found is locally known as *Palaakkundu* or *Nannangadikundu*. On the slope of this hilly region there is a small stream or *Thodu* which would dry up in the summer season.

The site contained a cluster of dolmens which vary from four to nine within a cluster. These Dolmens are found in a granitic circle on the top of a granite exposure. The quarry marks are also found on the surface of this granitic exposure. Most of the Dolmens are found within a clear packing. The well cut stones in a clear circular shape was used for outer most packing and it was filled with black soil. There was no possibility of natural soil on the top of the hill, so the soil can be assumed to have been brought from somewhere else. Most probably in order to protect the soil from erosion, it was filled with small stone pebbles. Within the circle these pebbles are found scattered. Some monuments are found disturbed here, many slabs have lost its capstone. Portholes are seen on the western side of some dolmens but they are partially damaged. We get some pieces of Pottery, which is identified as BRW on the surface part of one Dolmen. Along with this, some rusted pieces of iron were found which could be a knife. The site was noticed with the clusters of burial monuments and has noticed the presences of cut marks on the surface of nearby rocky area.⁴²

The monuments found within the forest were scattered here and there for many kilometers. Many monuments are found preserved without human

⁴² Field work conducted on the Vellarkulam area, which is in Pazhayannur Panchayath and Thrissur dist. The tributaries of Bharatha puzha, Gayathripuzha is flowing with a distance of 5K.M. from here. Now the site Vellarkulam was part of a reserve forest in Elanadu division. This area is notable with the distribution of monuments as clusters. All the monuments were located up on the small hilly areas.

intervention and it may be due to the inaccessibility of forest and the popular beliefs regarding site itself help in the preservation of the monuments.



Figure 1(a): Potsherds from Vellarkulam



Figure 1(b): Remains of rusted knife from the site



Figure 1(c): Dolmen up on a small hill



Figure 1(d): Potsherds with carved paddle impression

The site was a hilly area and Dolmens are the main monument found from here and most of them are disturbed in nature. Remains of rusted iron knife were found from the surfaces of the monument.

From the surface of monument we got some remains of iron and potsherds which have been broken in to pieces. It also needed some scientific analysis. They have been identified as BRW potsherds and iron pieces are probably fragments of a knife⁴³. Another cluster of monument was found very near to this place called *Kallamkulam*.

The site called *Vellarkulam (Palakundu)* is a notable one and it needs a detailed study because all the monuments in this area are surrounded by hills. The excavated site at *Pazhayannur* (1978) was mostly similar with the conditions of the site in *Palakundu*. But on the basis of these surface explorations we have not been able to identify a habitation that was present here. So it needs a detailed study here because all sites are surrounded by hills. The excavated site at *Pazhayannur* (1978) was mostly similar with the conditions of the site in *Vellarkulam*. But on the basis of these surface explorations we have not been able to identify a habitation and hence it needs a detailed study. Recently many explorations are conducted in Palakkad, Idukki and Kottayam districts of Kerala by various agencies and universities. Among this Marayoor one of the huge Dolmen centre of Kerala excavated by the team of Deccan College Pune, who opined that a high similarity was found between the monuments and its general surface of Idukki with the monuments of Palani hills.

⁴³ Field work conducted on 24.3.2012. Dr. V. Selvakumar participates in this field work and he opined that the potsherds available from the site were BRW in nature and the iron piece available to us was a part of knife.

The availability of Black Slipped Ware and Black Polished Ware indicate that the monument belonged to Pre-Christian age. The excavation fixed the period of monument as between 300 BC -200 AD⁴⁴. Another site which excavated latter is at Malampuzha in Palakkad district which revealed that Terracotta human figure was very unique in the Megalithic context of Kerala unlike other parts of Kerala⁴⁵. The most recently excavated site Kinalur in Calicut district was notable with its grave goods. They received so many Carnelian beads from this place that also indicate the relation with outside which may be through trade or any other means⁴⁶.

Is the earlier inhabitants of Kerala are responsible for the making of these monuments is another important question regarding this. If it was them, then came another question that who are the earlier inhabitants of Kerala? So we need to read some works related to this.

K. Rajan (Victoria college Palakkad) opined that like the nearby areas of Tamilnadu, it is also found here that the Cist burials are large in number and most of them were found in the rocky area and this may help the Iron age people to cut the granite slabs to make the orthostats (slabs) for cists or Dolmens.⁴⁷

⁴⁴ P.P.Joglekar, et. al., "A Preliminary Report on the Excavation at Marayoor, Idukki district, Kerala", in *BDCRI*, vol.72-73, (2011-2012), pp. 167-181.

⁴⁵ Ajitkumar, "Unique Terracotta Figurines from Megalithic Urn Burials at Malampuzha, District Palakkad", in K.N.Dikshit & K.S.Ramachandran(ed.), *Puratattva*, 34, 2003-2004, pp. 32-34.

⁴⁶ Dr.P.J.Vincent, "Kinalur-Chathanveedu vazhu Pouranika paithrukathilekku(mal)", in *Deshabhimani weekly*, feb 2016, pp. 41-45.

⁴⁷ Information shared by Dr.K.Rajan, Associate Professor in History, Victoria College, Palakkad through personal interaction. He also reveals so many unknown sites in District Palakkad.

Preliminary Observations

These are the general picture of our explored sites. A primary attempt of field exploration was carried out here, so we are unable to reach a final word regarding these sites. Further exploration and excavations are required in these areas to reach a conclusion in correlation with other sites.

Location(2)-Anappara

The site Anappara is situated in the valley of Gayathripuzha in Thiruvilwamala panchayath of Thrissur district. It is around 5-7 KM distance from Vellarkulam and Anappara area. So many megalithic monuments were found here and huge number of granite-rocks and some quarry marks up on this. This area lies on 10°42'50'1" latitude and 76°25' 65.2" longitude. But interestingly laterite was used to make circles in some cists. We do not know why they used laterite rocks while granite rocks are available in plenty. In some monument we found they use both granite and laterite to built burials. The soil is red lateritic in nature at some places. We have traced above 20 cists and other types from Anappara only and that have not been reported before. In our enquiry, we were able to locate a laterite stone quarry at a distance of around 5 K.M. But it was not as hard as they are found in *Kodakkal Parambu* in Chiramanangad. The laterite quarries are found in the places called Mayannur, Pambadi and nearby areas but study about the quality of this stone is needed.⁴⁸ May be the less quality of laterite is the reason for the absence of *Kodakkal* or *Toppikkal* in this area.

The site is located in Thiruvilwamala punchayath which was notable with the distribution of Cist burials as clusters. The monument was mostly found on private property of the natives and is disturbed in nature.

⁴⁸ Fieldwork conducted on 26.11.2011.



Figure 2(a): A cist from Anappara near Thiruvilwamala



Figure 2(b): A multi cist burial at Anappara

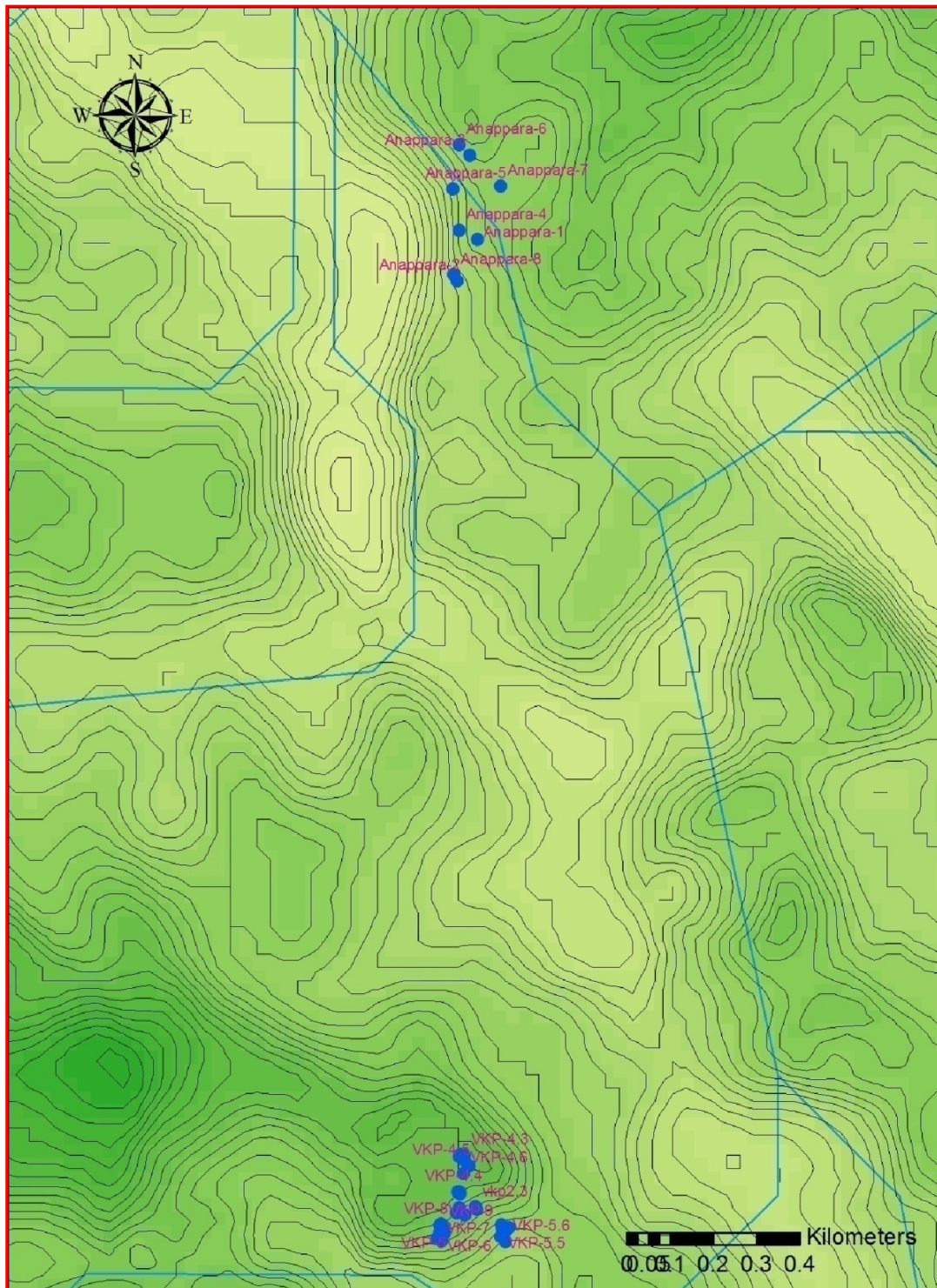


Figure2(c): A map which showing the monumental distribution of Vellarkulam and Anappara sites

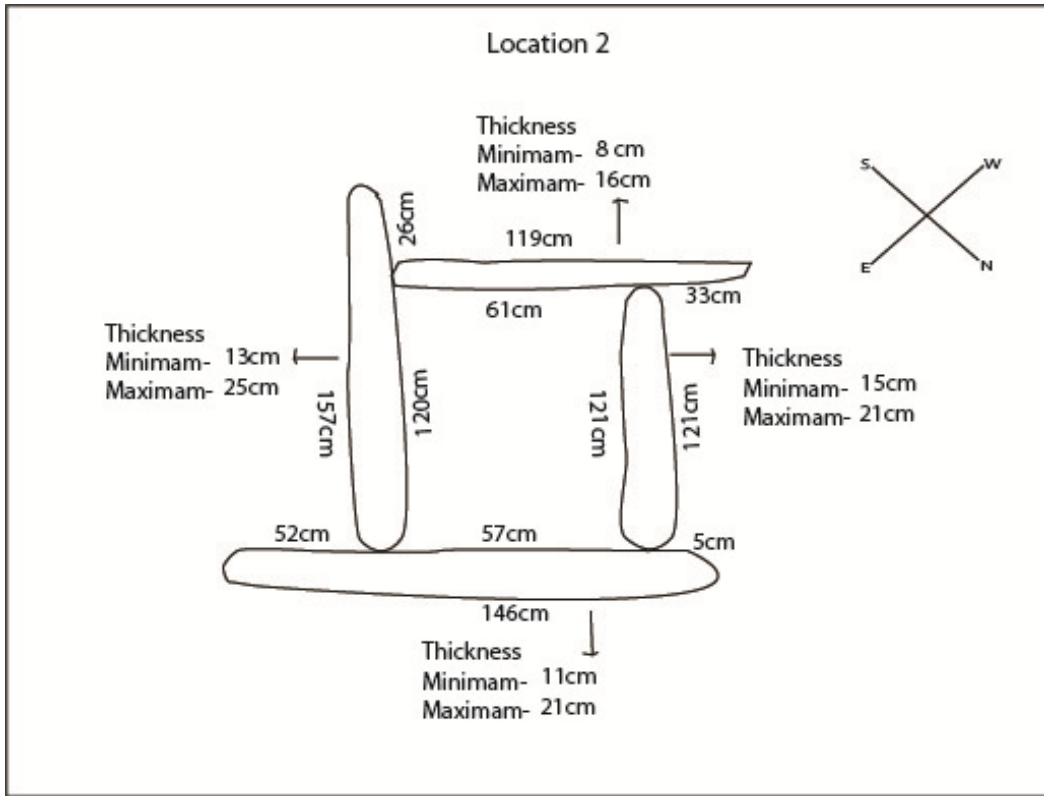


Figure 2(d): A drawing of the picture 2(a).

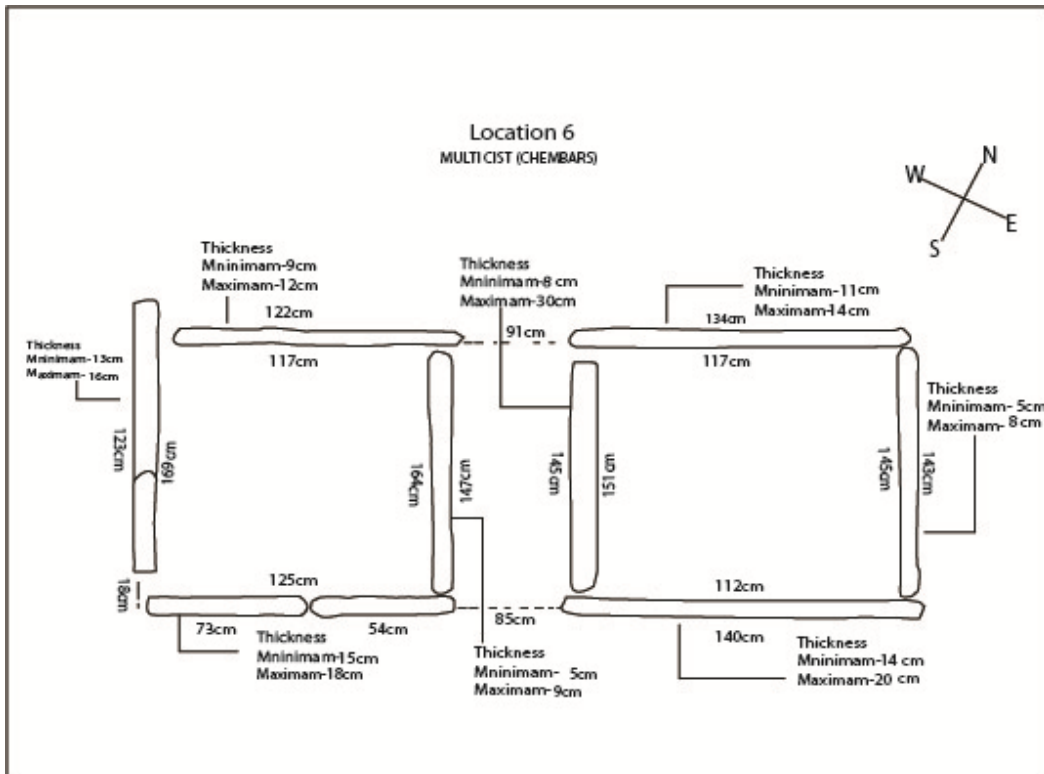


Figure 2(e): Drawing of 2(b)(multi cist burial)

Both sites are lying close to the already excavated sites like Pazhayannur and Thiruvilwamala on the bank of river Gayathri.

LOCATION(3): KUTHANNUR

Kuthanur was another notable site with the distribution of large number of Dolmens and Dolmenoid cists. The physiographical features and typology of the both sites like Vellarkulam and Kuthanur seem similar. Both of the monuments are built up on the sloped area of hills and again the type of monument at least in surface also shared same features. Paddy fields covered the surroundings of the monuments.



Figure 3: A dolmen

LOCATION(4): KAYAMPOOVAM

The site also lying as part of Elanad forest division and the geography is found as similar with previously explored site called Vellarkulam. The distribution of monuments found in an area around 5 KM but almost all the monuments are disturbed through the human interventions. All monuments look like Dolmens in surface level and scene as distributed in cluster. Almost all

dolmens were surrounded with stone circles and the circle was filled with soil.
All the Dolmens were seen up on small hills and were a rocky area.



Figure 4(a): A dolmen from Kayampoovam



Figure 4(b): Legs of a pot from Kayampoovam



Figure 4(c): Potsherds from Kayampoovam

The sites were highly disturbed in nature and grave goods were found in an exposed manner at the time of exploration.

LOCATION(5): KILIYANNIKADAVU

This site was lying between river Gayathripuzha and the forest division of Elanadu. Here also the sites were found as clusters but destroyed by nature. One monument looked like cap stones were found within a private property. This Capstone like monument was stood as untouched by people due to the divine nature of this monument. It is treated as something related to the nearby temple deity called *thevar*.



Figure 5: A granite cap stone

This area was notable with the availability of strong granites and was lying on the river belt of river Gayathri.

LOCATION(6): CHELAKKARA

All these places were lying between Elanadu forest division and Gayathripuzha. Here also the case of monuments was the same and through the field work it was able to find out one Urn burial covered with a sandy cap stone. The Urn has a height of 4 feet was found in here. Only the cap stone was seen on the surface of the land and rest of the part was within the soil. This monument was considered as important because the typology of the monuments found in its surroundings as Cists, Dolmens etc and Urn was seen as very rarely.

LOCATION(7): PAZHAMBALAKODE

This is a stone circle made out of laterite located on the road side. The Cist or the Chamber is missing. They might have been removed or destroyed. The circle consisted thirteen big laterite pieces and both inner and outer sides of the laterite piece are dressed to match the circle. Among these thirteen stone

pieces, a few of them are fallen outside. Some monuments are found here like laterite circle with granitic cist inside.

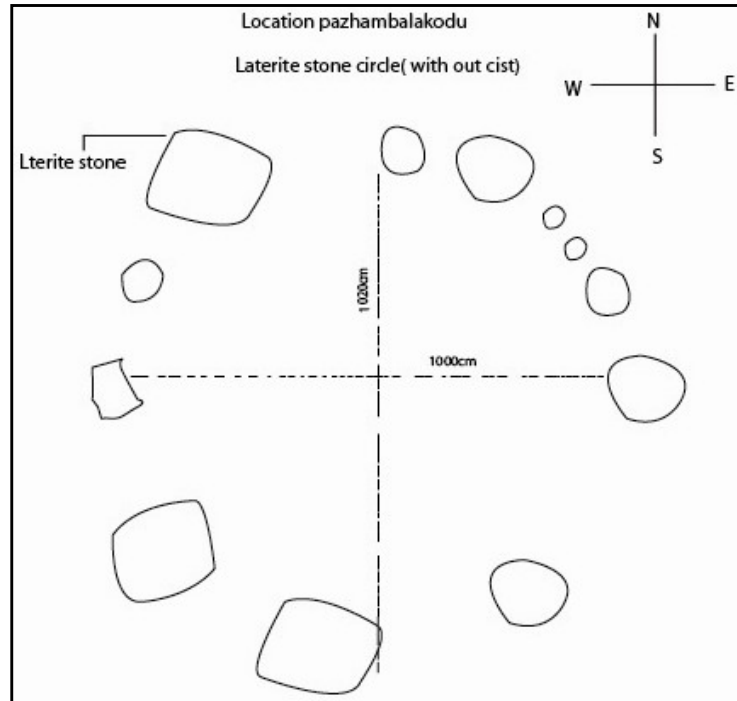


Figure 6(a): Drawing of a stone circle found in Pazhambalakode

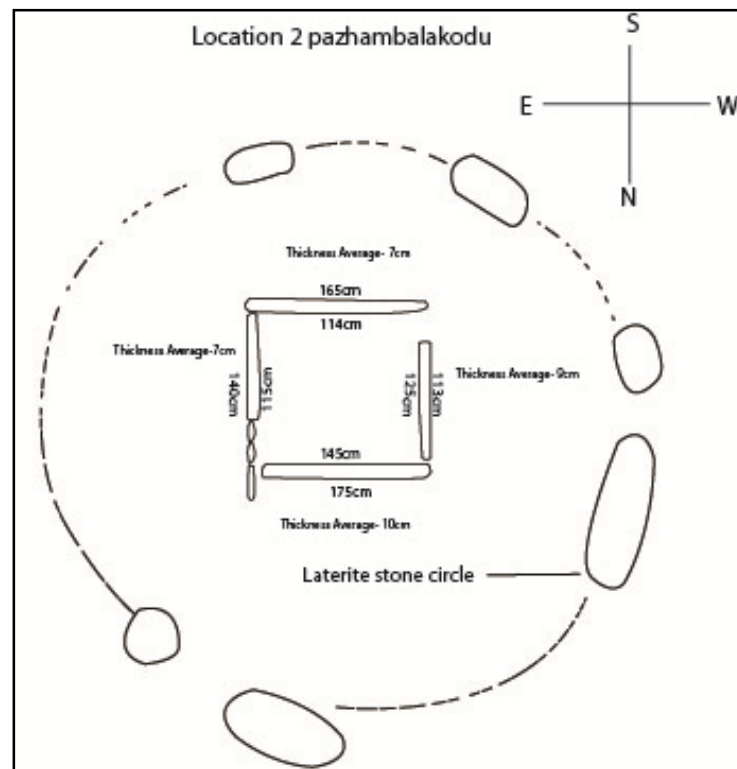


Figure 6(b): Drawing of a cist with granite stone circle

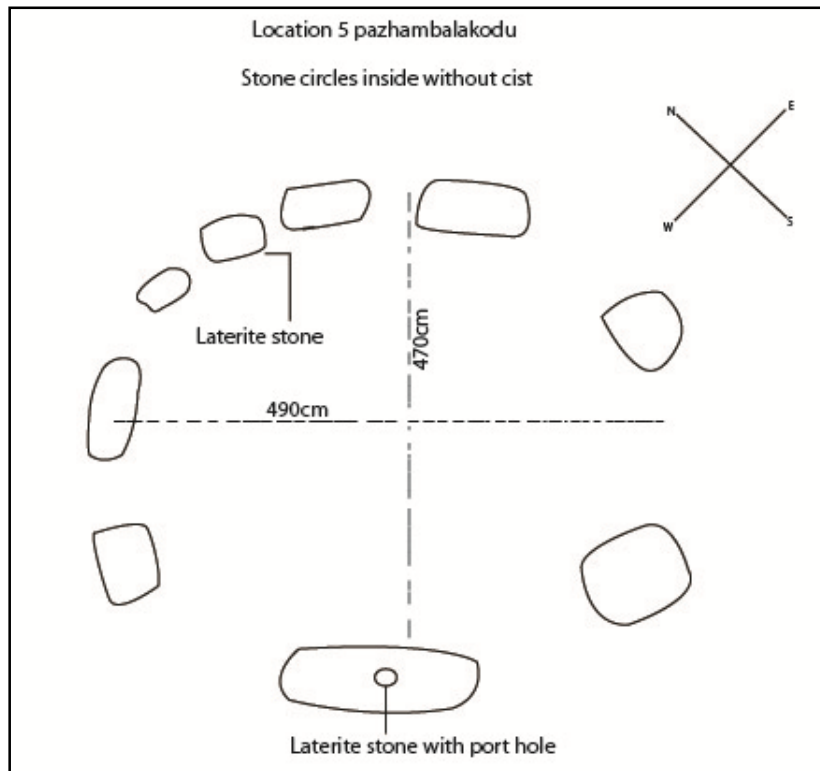


Figure 6(c): Another laterite stone circle with a port hole

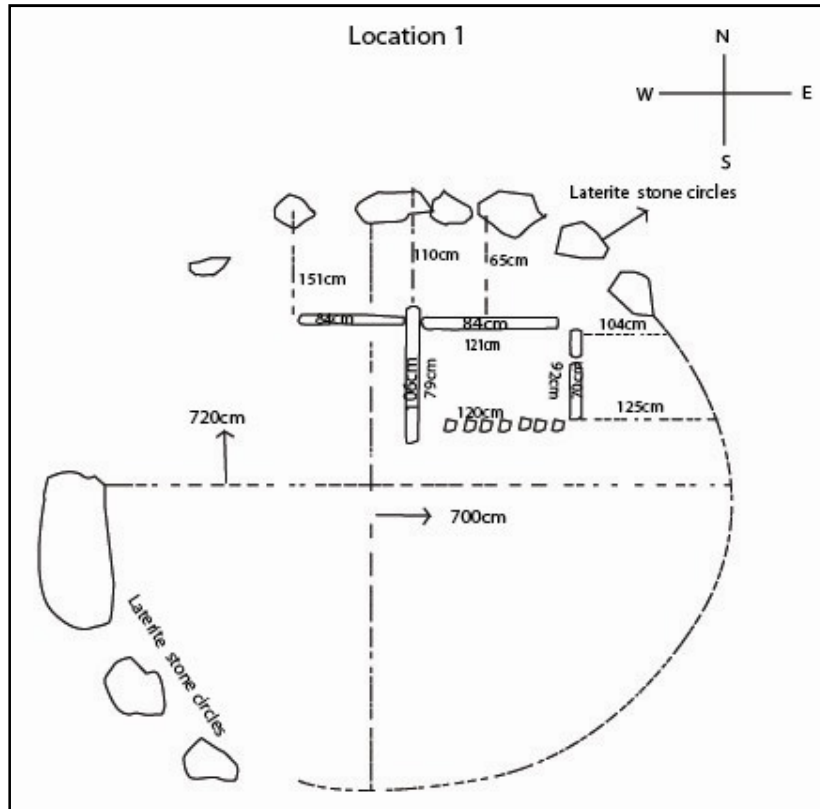


Figure 6(d): Laterite stone circle

This Pazhambalakode site is notable with huge distribution of monuments as Clusters. It was a lateritic area and no more dolmens were found and unlike previous sites like Vellarkulam it was a plain land. No more Dolmens like monuments were explored from here. May be the physical environment of a land has played a role in it.

The entire above mentioned are only some sites which were explored by me during the time of fieldworks in these areas. So many disturbed sites are found near the forest areas called Puthirithara, Elanad, Kumbalakode, Vadakkethara etc. All these sites are situated within the distance of a few kilometers which is less than 5-7 KMs. I used to visit so many sites on the basin to understand the distribution pattern and settlement prevalent there, which was reported earlier so the details of those were not mentioned here. The grave goods types and monumental typologies proposed the use of some kinds of technologies existed here. But the absence of habitation and horizontal excavations prevented us from the study about megalithic monuments present here. In that context it is understood that a study based up on technology through an ethno observation is the only possible one here. It is generally believed that, once a technology invented by human beings that can never be rejected by them in their life time. Possibly some addition were happened on that. So the findings of large scale settlement of craftsmen groups within the areas of megalithic sites were considered as notable. Certain enquiries made here in relation with the use of technologies by the people who lived there and apply certain relating study on the artifacts of that time with current technology.

Ethno- Archaeology

Ethno-archaeology is a new branch of knowledge developed in seventies along with Settlement Archaeology, Post-Processual Archaeology, Cultural

Ecology etc. All these streams of knowledge have some common character. They give more importance to the involvement of men in society. The ethnographic studies may help to understand the habitation, settlement, ethnicity and socio-religious situation of that particular society. In case of megalithic burials, it has been argued that it was a living culture and had followed some rituals and customs in relation with death. Some tribes from various parts of the world like Burma, Indonesia, Thailand, Malaysia namely Mundas, Oraons, Hos in Eastern India; Gond and Baiga in Central India and Kota and Kurumaba of Nilgiris are found to be practicing this kind of burials in the recent time also.⁴⁹ In South India, the early inhabitants like Kurumbas, Gollas were considered as the tribes who were practicing pastorals for their living. The Iron Age burials are generally connected with peasantry. Like that the megalithic monuments called as *Pandukal complex* by Leshnik is considered as visible in an area where settlements were happened. BRW potteries also have considered as the indication of a human settled in that area.⁵⁰ L.A. Krishna Iyer says that the *Mala arayans* of Travancore also practiced this kind of an erection of dolmens for the people who died.⁵¹ K. J. John along with Krishna Iyer has shared the same view regarding the living tradition of Megalithic practice in Malabar area.⁵² He also has the opinion that the tribes who belonged to the area of Western Ghats have followed the burial practices similar with the practices of megalithic times. He

⁴⁹ Mortimer Wheeler, "South Indian Megaliths" in Glyn Daniel(ed.), *Early India and Pakistan*, London, 1968, pp.150-168.

⁵⁰ L.S.Leshnik, "Pastoral Nomadism in the Archaeology of India and Pakistan" in *WA*, Vol.4, No.2, 1972, pp.160-164.

⁵¹ L.A.Krishna Iyer, *The Pre-Historic Archaeology of Kerala*, Trivandrum, 1948, p.18.

⁵² K.J.John, "The megalithic culture of Kerala" in SIHC, 11th session, Dept of History, University of Calicut, 1-3 Feb 1991, p. 17.

says that the rock shelter at Marayur has found some carvings of hunting seen. For this he elaborates that a group of people who were involved with hunting may have existed here.⁵³ *Chola Naikans* and *Kattunaikans* of Nilambur region were reported as a centre of living megalithism and have still followed some forms of burial rituals at that time.⁵⁴ Here I think that the tracing of some ethnic groups like the communities which involved with various crafts and trade are valid for understanding the material background of the people from earlier times onwards because we found some works in earlier regarding the living tradition of megalithic burial system. In Kerala and Tamilnadu, the metal smiths belonged to the community called *Kammalas*. All these craftsmen groups claimed their origin from *Deva Brahmins*. With the title Craftsmen group or the term *Kammalas* were included the peoples belonging to the communities called *Asaris* (carpenter), *Kalhasaris* (masons) and *Moosaris* (bell-metal workers). They followed certain cultural similarities with the nearby state called Tamilnadu.⁵⁵ Almost all works in this area had dealt with the similarities found between the present burial system of tribes and the system existed in earlier times too. But the study which deals with the people who kept an understanding about these technologies may help us to trace the origin of these technologies and may get some information regarding the development of technology here. The ethno archaeological studies have got some problems due to the absence of more scientific excavations and ethnographic enquiries. So it is thought that it is feasible to make enquiries regarding the communities like potters, blacksmiths,

⁵³ *ibid.*, p.15

⁵⁴ P.Rajendran, "Neolithic axe from Kerala", in *Puratattva*, 2005, PP.134-146.

⁵⁵ Pupul Jayakar, "Metal Casting from Kerala" in *Indian International Quarterly*", Vol, 11, No.4, 1984, pp.63-67.

masons and others those who lived in the surrounding areas of these megalithic burials for a detailed study. If we take the case of the area of study like 'Bharathapuzha basin' it is found that the communities like potters and blacksmiths lived as many groups and have practiced a mixed culture of other parts of South India. May be these groups of people were migrated from somewhere. So after tracing the megalithic distribution in the area of study it was needed to check the list of these communities.

All we know about the material culture of megalithic monuments that pottery and Iron artifacts has got importance. The potteries were the most important material remains of that period. The varieties of pottery goods like bowls, dishes, pots, large urns etc reveal the collective labour force that could have existed at that time. Both handmade and wheel made were found. This also supports the technical skills of the potters' community in that society. So I try to make a study regarding the people belonging to potters community, masons and also the Blacksmiths who settled near the area of megalithic monuments where they are distributed widely. Both these communities were found to be settled in this riverside area as group and in our enquiry it is found that throughout the course of river Bharathapuzha and its tributaries the people were found including these communities. Like that we conducted field work in some area which is near the river Gayathripuzha one of the tributaries of Bharathapuzha and interestingly found the distribution of iron slags. Most probably it indicates the possibility for the making of iron in the area. Western Ghats and its surrounding hilly areas were cited as an area where minerals were available. The absence of scientific excavations and explorations were very few in Kerala, but it is hoped that an archaeological understanding along with the use of groups or

communities who settled on the nearby areas of that megalithic sites may support our study in an ethno archaeological way. Some case studies about the craftsmen communities may help to make an awareness regarding the technology of the people. These communities have followed certain kind of job which was common for that particular group of people. Here this river basin was selected because I think the geography of the study area was important and it was originated from Western Ghats and have got attraction due to the presence of Palakkad pass in here. River covered the districts like Palakkad, Thrissur and some parts of Malabar in Kerala. In Kerala, most of the varieties of megalithic monuments were found in this river basin. The geographical position of this river may be the reason for this huge distribution. The river is originated from the Anamalai hills of Western Ghats and covered Coimbatore and Salem districts of Tamilnadu and through the Western Ghats it entered in to Kerala. It is considered that the geography of Palakkad were unique due to the presence of Palakkad pass which enabled more easy communication with neighboring Tamilnadu and other southern countries. So a study based up on the group of people with various technology (Potters, Iron, stone) may help to understand the material background of people at that time.

Ethno Archaeological Observations of Gayathripuzha Basin

Among the megalithic sites of Kerala the area under Thalappilli taluk is notable with the most varieties of monuments in Kerala. I personally conducted some field works to locate some unexplored sites and also tried to conduct some interviews with the craftsmen like potters, iron workers, stone workers etc. I selected the area of Kondazhy - Mayannur for this. Here most of the settlement areas are located just 3-6 KM distance from the river called Gayathri puzha.

Interviews and some discussions tried to interlink the production methods and checked their familiarity with the shapes of grave goods iron tools, potteries, stone marks etc. Most of these three groups tell a story of migration from other parts of South India and also are familiar with the technologies of the making of these iron, stone, pottery etc. These settlements were found to be in the area where most of the megalithic monuments were distributed. This also prompts us to check the material background of the period of megalithic practices.

The area through Gayathripuzha flows covers some areas under Thalappilli taluk. The excavated sites like Pazhayannur and Thiruvilwamala come under this taluk. This place is rich with the distribution of many unexplored sites. Some sites are explored by me and found that the area is rich in megalithic monuments and also the craft men groups which interviewed by me live in its surroundings. On going through the settlement register of this area, there found one interesting thing. It is thought that the comparatively vast areas come under Thalappilly taluk from the one extent of Thrissur district to the bordering area of Palakkad. (Thalappilly taluk extends from Porkkalam to Thiruvilwamala area.) Of course it can be argued that the settlement registered is comparatively later and how can it be feasible to use the accounts to connect the things with the very early period. Here one thing has to be done with the use of place names, house names and with owners' name, that to try to identify the details of the people or communities which belonged to here. Along with this the name of property or land is used here to understand the nature of settlement. Like that the group called '*Chettis*' were considered to be the migrating groups and possibly involved with trade. Make this conclusion with that community's

current status. The evidence of trade was received from early period onwards. R.N. Mehta and K.M. George are of the opinion that the availability of Carnelian beads from coastal as well as hilly areas supports the practice of trade at that time. Rajan Gurukkal and R. Champakalakshmi also support the existence of inter and intra-regional trade from 3rd century BC onwards.

The field works unearthed so much of megalithic monuments like dolmens and cists from the basin of river. Like that when going through the place names, house names, and the name of the owner of property, it is found that these areas under Thalappilly taluk existed as different from other parts of Thrissur district and found the settlements were more by the people from the communities like *Cheruma*, *Pulaya*, *Chettis*, *Viswakarma* etc. Most of them belonged to the lower strata of society and from the migrated groups of Tamilnadu and other parts of South India.

Generally revenue settlements records keep the details of types of land, proprietors of land and details of the living community. Here those records are used to mention the communities of the people who belong there. The groups involved in agriculture and trade were found to be centered here in large number. When we take the settlement records, it is found that the areas comes under Palakkad area and some villages which are lying more close to the Palakkad area also have similar settlement pattern. It is understood that the settlement of people with different cultural background may have happened due to the contacts with other parts of South India through the Palakkad gap. For example, the names of certain villages on the bank of river Gayathripuzha are given below and along with this the list of communities which lived in here are also given.

Chelakkara As already mentioned, in the village of Thalappilly taluk and here found some names of land and places which are interesting.

Kollan Parambu : -(Name of the land) this land was owned by Perunkollan Korappanswami.⁵⁶(Black smith)

Asharikudiyiruppu Parambu: Owned by Marashari Chamu Chathu. (Carpenter)⁵⁷

Jonakan Parambu: - Owned by Thendukavil Eezham Ittikal Velu, the people who belonged to a toddy taping community.⁵⁸

Jonakan parambu: - This name was again shown under the ownership of Chelakkara Konnan Perumal chetti and Chelakkara Ramaswamy Chinnayyan Chetti'.⁵⁹ (The subtitle *Chetti* may indicate the people who were migrated from other parts of South India like Tamilnadu, Andhra and Karnataka. This group of people is generally involved with trading activities.)

Like that with in the village of Chelakkara found so much of land under (the survey No: 350, 435, 434) belonged under the owner ship of the people from the communities like *Chettis and Ashari* (Carpenters).

Pulakkod (No.66)

Village under Thalappilly taluk lie almost near to Chelakkara. Here also found such kind of land names and was owned by these kinds of communities. *Kallan kudyiruppu* is the name of a land mentioned here. *Padinjare cheru*

⁵⁶ Revenue settlement Register, Chelakkara (No.61), pp. 156-157.

⁵⁷ *ibid.*, pp. 160-161.

⁵⁸ *ibid.*, p.164.

⁵⁹ *ibid.*, p.165.

parambu is the land found to be owned by *Kandukatta Pappada chetti*.⁶⁰
(Trading community)

Pazhayannur (No. 67)

Here also found the lands with the name Jonakan Kudiparambu, Kudiparambu etc. Most of the lands were owned by the people belonging to *Chetti* communities and *Kollan* (blacksmith).⁶¹

Elanadu (No. 64)

Here also found places with such names. Along with that found the places were owned by the people who practiced toddy tapping. *Puthuvan parambu* is owned by *Puzhakkan Eezham Ayyappan Chathu*’⁶²

Vennur (No. 65)

Here also found the lands with the name *Jonakan Kudiyiruppu*.⁶³

Mayannur (No. 71)

This area is also lying on the bank of Gayathripuzha. While going through the settlement register of here, it is found that many lands were owned by the ‘lower or cultivating’ community like *Cheruma and Paraya*, ‘*Mannan*’, etc. The names of lands were like this; *Eezhavan Kudiparambu*, *Cherumathodi*, *Cheruman Thodi Parambu*, *Chettikudiviruppu Parambu*, *Chettiparambu*, *Parayan Thuruthi Parambu*, *Mannan Parambu*, *Ashariparambu*, *Asharikudiparambu*.

⁶⁰ *ibid.*, p.167

⁶¹ *ibid.*, No: 67 p.167

⁶² *ibid.*, No: 64 p.165

⁶³ *ibid.*, No: 65 p.165

Vadakkethara (No. 68)

Eezhavankudiparambu, Punathil thazham, Eezhavanparambu, Jonakan kudiparambu all these indicate the ownership of the land by a hierarchically lower community in this area.

Kondazhy (No. 70)

In *Paraya parambu, Chettithara kaduparambu, and Kudiyiruppu parambu* also found the presence of so called lower communities.

Thiruvilwamala (No. 73)

Kudiyiruppu Parambu, Paraya Parambu, Chettikudi Paraya, Cherumathodi Parambu also show the similar case.

Thalappilly taluk is a very vast area, but only these villages (which are close to the border areas of Palakkad) are notable with the distribution of places with these names and found the settlement of various lower and craftsmen communities largely. The similar kinds of settlements were found in the case of Chittur taluk, this area also included on the bank of river Gayathri. When going through the settlement register of other parts of Thalappilly taluk (villages from Chelakkara to Thrissur area) most of the lands were owned by *Devaswams* and people belonging to Nair, Brahmin communities. The settlement of Craftsmen groups and cultivating communities as seen largely on the area which is more close to river Gayathripuzha (Bharathapuzha), possibility this have certain links with the large scale megalithic distribution in this area. The term ‘cultivating communities’ are used deliberately because it is understood the references from Tamil anthologies that the people belonging to the categories like *Cheruma* and *Panar* etc were involved on the process of production. It is generally accepted that

the primary producing groups in Kerala in early historic time belonged to the communities of *Pulaya*, *Panar* etc. *Kutis* were considered as the back bone of production process in early historic time.⁶⁴ Another group of people who settled here largely are the people belonging to *Chetti* community. This may indicate the settlements of migrant people in this locality. When this people migrated to this region is an important question, but certain other evidences like place names, geographical conditions etc support the possibilities for the transformation of certain beliefs and practices through generations. The Sangam sources support the presence of certain production groups in that period itself, so a chance is found there for the existence of the communities from very early period onwards. When they began to settle is another issue which is not going to be discussed in this study. So I collected some information from their memories and also compared their technology and latter cross checked the chance for technological similarities with the latest and early forms. Through the adoption of regressive method, we are not discussing the actual origin of craftsmen and our matter of concern is the technology. That means we are not discussing, whether the potter, iron smith or a mason is travelled or not, just mentioned the possibilities of the travelling of 'technology' and probably they select an area which is favorable for them to practice that particular craft. It may be that the availability of raw material to make that particular object may attract the people who practiced that. Like that the river basin of Bharathapuzha is notable with the settlement of a potter and its raw material also. In this way we select some craftsmen communities in this area and tried to make a link with their present technology and the actual object which was received by us in the monument.

⁶⁴ K.S.Madhavan, "Primary producing groups in early and early medieval Kerala: Production process and Historical roots of Transition to Castes (300-1300 CE)", (Unpublished PhD thesis), Dept of History, University of Calicut, 2012, pp. 79-157.

Pottery and its Making

In the History of India, pottery and its making were very crucial even from Harappan period onwards. Pottery is largely available from other ancient sites also. We all know that pottery played a significant role in history, but when, where, and how it began to be produced is a problematic question. The earliest surviving examples of ceramic technology traced in Eurassia during early upper Paleolithic times are from a site named Dolini Vestonici. The availability of huge potteries was seen from Megalithic time onwards.⁶⁵ Many historians have proposed the origin of Indian pottery from Neolithic times. One was proposed by Vandiver and she says that ‘Pottery technology probably developed out of Neolithic plaster technology’⁶⁶. Another view of the origin of pottery is Kitchen based one. According to them, pottery was invented after the discovery of sun-baked clay, which was originally used in kitchens as people realized that the fired pottery became stronger and comparatively long lasting one and it will help the process of storage and cooking etc. It is called ‘Culinary hypotheses.’⁶⁷ But the scholars like Ralph Linton and Gordon Childe do not support the theories of the origin of pottery from Neolithic age. All these theories have not got any acceptance in the case of the production of potteries in India.

A case study of the Potter community of *Kumbarathara* at Kiliyannikadavu and Kondazhy in Thrissur district was undertaken, as a sample for

⁶⁵ Kamaladevi Chattopadhyay, *Handicrafts of India*, Indian Council for Cultural Relations, New Delhi, 1975, p.168.

⁶⁶ Prudence M, Rice, “On the Origins of Pottery”, in *Journal of Archaeological Method and Theory*, vol.6, No.1, 1999, p.45.

⁶⁷ Keith Nicklin, “The Location of Pottery Manufacture”, in *Man*, vol.14, No.3, 1979, p.55-56.

ethno archaeological study that would give some kind of information regarding the process of pot making and its technologies. Such a study becomes important in the context of the available evidence for pottery in the megalithic sites. For example, the excavations of Machad and Pazhayannur revealed pottery types such as lids, pots, dishes etc. The pottery varieties indicate the perfection of technology in that time because when going through the culture of this community it is understood that they were migrated and have taken roots in the region.⁶⁸

The potters of Kiliyannikadavu and Kondazhy live in settlements proximate to the megalithic sites. These settlement areas belong to the Gayathripuzha basin (a tributary of Bharathapuzha) and they have still practice the production of pottery as their way of living. Their settlements covered all parts of Kerala, but the main area of their settlement is Palakkad. Here for more convenience the potters of Gayathripuzha basin were selected for this kind of a study. This area was notable for its megalithic varieties. From, most of these sites we get the remains of many potteries like dishes, jars, large urns etc. So we try to enquire whether the potters of our area is familiar with these types potteries, technologies etc.

Making of earthen ware is believed to be man's first craftsmanship. Civilizations are dated and assessed by the earthen ware found in excavations. The view made by Carnelius J. Holtorf is an interesting one; to him the megaliths and other monuments have 'life-histories'.⁶⁹ Before the invention of Wheel, handmade potteries were largely used. Clay, wheel and kiln are the most important equipments of a potter in all societies. The most important factor for

⁶⁸ Shereen Ratnagar, *Makers and Shapers – Early Indian Technology in the Home, Village and Urban Workshop*, New Delhi, Tulika Books, 2007, pp. 112-119.

⁶⁹ Carnelius J. Holtorf, "The Life- Histories of Megaliths in Mecklemburg (Germany)", in *WA*, vol.30, June, 1998, pp.112-120.

the production of pottery is the clay with good quality. Generally the pots were made with locally available clay. Paddle which was generally made with wood was used for thinning and expanding a wheel thrown pot by systematic beating. When shaping a pot, the rounded anvil was used to support on the inside. Beating with paddle and anvil provide strength to a pot. Through the excavations at South India (Arikamedu and Veerapuram –early historic period) we get a possible potter's wheel of wood with 15 cm long and 6 cm thick.⁷⁰ From most of these sites we get the remains of many potteries like dishes, jar, large urns etc.

WHEEL

Introduction of wheel is the major innovation in the pot making process. It provides great speed and efficiency. When the wheel made pottery was introduced in India, it was not known to us. It is a common kind of technology used for making pottery. The potter throw the clay in to the centre of the wheel, rounding it off then spins the wheel around with a stick. The *Kumbaras* have a myth about wheel; that is like this: In the ancient days the potter's wheel was used, it was given to them by God and it was used to turn by itself. One day a man kicked it with his foot and it stopped turning. Then they went to *lord Sankara* and told him what had happened. He gave them a stick and said the wheel have to be turned by using the stick. He also took off the waist string from the potters and said the pot would have to be cut from the wheel by that string.⁷¹ These kinds of many stories exist among them.

Now potter's wheel can be made of wood, clay or cement. Sometimes the wheel is made with wooden spokes with a packing of clay on each side. A

⁷⁰ Shereen Ratnagar, op cit., pp. 98-124.

⁷¹ Prudence M, Rice, "On the Origins of Pottery", in *Journal of Archaeological Method and Theory*, vol.6, No.1, 1999, p.25-34.

wooden wheel may be made by the potter with the help of a carpenter. The wheel rotates evenly on its pivot made out of iron or wood. The wheel is pushed with a rod or stick to make it start rotating.



Figure 7(a): Wheel used by the potters of river Gayathri basin



Figure 7(b): A potter who turned the wheel for shaping the pot.

The wheel used by potters has gone through various changes like many other things of the world. But the basic technology was seen as the same.

PADDLE

Paddle is generally made with wood which was used to thinning and expanding a wheel thrown pot by systematic beating. When shaping a pot, the rounded anvil was used to support on the inside. Beating with Paddle and anvil provide strength to a pot. Beaten pots are thinner and harder than others. F. R. Allchin suggests that paddle – anvil technique existed from Neolithic times onwards.



Figure 8(a): Paddles



Figure 8(b): Another paddle from a potter's work place

The potters who settled near the river basin of Gayathri also used wooden paddle, the most important equipment of a potters work space with almost same thickness. The potters have knocked on the shaped pottery for changing the shapes and have arranged its thickness according to the purpose of the pot.

KILN OR FIRING

Kilns and firing method have played a crucial role in the history of ceramics. The most ancient and primitive way of firing is open.⁷² This method is still practiced in many parts of South India. But this method is rarely followed in Kerala. Many firing methods are used in various places. In some places it was done within a space which is large or small according to the number of pots to be fired.

CONSTRUCTION OF A KILN:-

An ash pit and a fire mouth are the most necessary thing for a kiln. Ash pit was made for arranging woods and other firing materials. Usually a wall with

⁷² Michael Cardew, *Pioneer Pottery*, London, Longmans, 1969, P.78.

mud or brick was the boundary of a kiln. The firing is generally done soon after the sunset or the early morning. The fuel for the kilns consisted of layers of straw, wood and dried cow dung etc. In some areas coconut husks, grass and dried leaf etc are used in addition to wood.⁷³ The vessels and pots are arranged on the top of this fuel layers and finally it is covered with straw and then plastered with mud, leaving an opening at the bottom for filling the fuel.⁷⁴ In our area the kiln was constructed inside a house or a shelter to protect it from the rain. Earlier they also followed open firing and temporary circle of stones. Now it has been replaced by a circular mud wall.

CASE STUDY: -

POTTERS OF KONDAZHAY AND KILIYANNIKADAVU

There is a group of Potters, Kondazhy and Kiliyannikadavu (two Panchayaths of Thrissur district, sharing boundary with Gayathripuzha and Palakkad district) who earn their living by making earthen pots and other items. They were known by a lot of names such as Kumbaras, Kusavas, and Kulalas etc. They were highly skilled in making household utensils, flower pots, big jars etc. According to them, they belonged to a group called 18 ½ (eighteen and half) *chettis*. *Kumbaran* (potter), *chakkan* (oil pressers), *kaikolan* (weavers) are the members of this group. One group called *vattkad Nair* is the half chetti of this group. The language spoken by the Potters is a version of Telugu mixed with Tamil and Malayalam. It is a factor which may be attributed to their former nomadic life style and has no script of its own. Though the potters are familiar

⁷³ Marilyn p. Beaudry, et.al., "Traditional Potters of India", *Ethnoarchaeological observations in America*, vol. 29, No.3, pp.59.

⁷⁴ Vindula Jayaswal & Kalyan Krishnan, *An Ethno-Archaeological View of Indian Terracottas*, Delhi, Agam Kala Prakashan, 1986, p.123-240.

with the regional language, a frequent use of their mother tongue may isolate them some times from natives.

THEIR LIFE AND BELIEFS

The potters claim that they originally belonged to Andhrapradesh and in the course of their search for clay and other necessities they came here and settled. Some potters in this area believe that they belong to the Brahmana community of Mysore and some claim close relation with Mysore Rajas. But with the absence of any solid source it is difficult to accept this. We find sub-castes among the potters like *kumbaras*, *velans*, *vodayars*, *anthurans* etc. Among these the *Anthurans* use Malayalam as their language. *Kumbaras* believed that they are superior to other sub-castes. *Velans* have very low rank among them and they are not involved in pottery making.⁷⁵ One potter named Ramachandran, says that potters in Kerala, Andhrapradesh and Tamilnadu have been sharing some common beliefs, practices, rituals etc., especially their pottery making techniques.

Their settlement area is generally known as *Thara*. In every settlement, potters live in a separate locality, known as *Kumbara Thara*. An observation made by Vidula Jayaswal and Kalyan Krishna is that like other Hindu communities, potters also have many sub-castes. The caste stratification is maintained by them for their social customs like marriages and others. But now, the caste barriers are slowly withering away from their community. The potters from our area also support this observation. In earlier time they did not conduct marriages from their sub-caste groups.⁷⁶

⁷⁵ Jaya Jaitly, "Organising the unorganised in Kerala: case studies of Aruvacode and Kodungallur", *Economic and Political Weekly*, Vol.32, 1992, pp. 187-196.

⁷⁶ Vindula Jayaswal & Kalyan Krishnan, op cit., pp.134-165.

THEIR PROCESS OF MAKING POTTERY

The potter's wheel, clay and kiln are the important items seen in every work shed which is situated close to their homes. Other tools like wooden hammers, paddles etc are a common sight of every work sheds. Among the households, it is men who are completely involved in making of pots. In earlier time, the products were carefully placed in a bamboo basket called *gappa* which is balanced on their head and the items are sold from door to door by women and children.



Figure 9(a): 'Gappa', a bamboo basket used for selling their pots.

Clay is plentiful in these areas. Clay is usually available on the vicinity of the river and was carried by head load in to their compound by female potters. But sometimes the clay had to be imported from the sites far from their settlement due to the bad quality of clay. But the main source of clay is from the river basin. In both Kondazhy and Kiliyannikadavu, they collected it from the basin of river Gayathripuzha and sand is also collected from here. Sometimes they use sand and rice husks along with the clay to increase the workability of clay.

PROCESS BEHIND THE PRODUCTION OF POTS

Like other areas, they also collect clay from the river basin. They firstly prepare the clay with water, sand and rice husks are added to increase the workability of the clay. The potter mixes it thoroughly by working the clay with his feet until it is completely mixed. For making a vessel, they throw the mixed clay in to the wheel after that it is shaped by hand and strengthened with a paddle and anvil. After having dried it in shade, later coloured with red soil and put it in to the kiln. Cow dung, grass and wood are used in the kiln. The kiln is constructed out of bricks or mud wall. The common interior diameter of the kiln was 5 feet and the mud wall has 4 feet high above the base of the kiln. The process of firing may last for a few hours or days. In the rainy season it need one or two days for firing.⁷⁷



Figure 10: The picture of coloured soil used as slipped for ware

⁷⁷ Dr.K.Krishna Murthy, *Archaeology of Things*, Delhi, Sundeep Prakashan, 1998, p.36.

POTTERY AS MORTUARY GOODS

The historical continuity of pottery traditions from prehistoric times to the present is established a comparison between archaeological remains and the contemporary potter's techniques. Pottery is the largest quantity of mortuary goods available from the sites. Pottery is very much associated with Iron Age. There are considerable variations in the size and shape of the terracotta. Only skilled and experienced people could have created pottery of such variety and fineness. This mortuary items include large urns, dishes, small pots, legged jars etc. Interestingly many burial sites with pottery goods are available to us from the nearby areas of their settlement. When we conduct a surface exploration in these burial sites, we get many potteries like BRW. Broken pieces of dishes, small pots, and legged jars are also found. When we showed the photos of legged and large urns to the potters of the study area; they said they were familiar with that and they know the technologies of such huge urns. According to them; wet climate was more favorable to the production of large urns and jars. The climate, quality of clay, its plasticity etc affect the strength and life of such huge urns. The geographical condition of this area may have forced them to choose wet season because the dry and hot winds coming from east (through Palakkad gap) make the pot drier and it would break easily. They say that to give black and red colour to a pot, they usually coloured the pottery with red soil for glazing, and to given black shade they burn it with dry leaves. Another thing is that they do not practice the 'open firing' unlike Andhrapradesh or Tamilnadu. They say that it is not applicable here because the clay from here is not so fine. The pots would easily break in doing so. Closed firing technique was an

adaptation by them. We have already mentioned about the dry climate of this area, we know that the speed of wind through Palakkad gap is between 50- 100 km. The climate was not feasible to make such huge urns. From this we observe that, the absence of huge urns among the megalithic remains in this area may be due to this reason.



Figure 11: Small pot used for mortuary rituals.(From the workshop of potters in Gayathri puzha basin)

Iron Artefacts and Blacksmith community

Iron industry was a traditional occupation in Kerala and some other parts of South India. Till 19th century, extensive iron works were reported from Kunnathnadu taluk in Ernakulam district and Thalappilly taluk in Thrissur district, Chittur and Ottapalam taluks in Palakkad district and Ernadu taluk in Malappuram district.

Iron artifacts were considered as one of the important grave goods of these megalithic monuments. Of course the ‘megalithic’ literally indicates ‘big

stone monument', but that was never completed without the presence of an iron tools or implements. The iron along with BRW pottery makes these burial monuments complete. If we are going through this problem, it is found that the origin of iron itself is a crucial one. So many theories were propagated by the scholars regarding the origin and spread of this metal. Wheeler opined that iron was probably spread in South India due to the diffusionary process.⁷⁸ Chakrabarti says that an indigenous development was happened here.⁷⁹ But one thing is sure that the hardness of this metal may bring some changes in the society. Based up on some excavations Wheeler and others says that iron was known to India as early as 1000BC. The chances of the making of iron in an accidental manner is very less because the smelting of iron needs some processes. Iron was smelted from its ores in the presence of charcoal at about 1200 C and iron is made free from impurities through hammering iron in high temperature.⁸⁰ All these showed the craftsmen groups at Kerala also have technological skills. Like that iron ores were available in plenty from various parts of Kerala. There found some other reasons to think that iron was plenty at that period because the large number of tools and weapons which was used for agricultural and hunting purpose may support the easy availability of its raw materials in these localities itself.⁸¹ Gururaja Rao has listed 33 varieties of iron tools and implements like axes, sickles, tripods, chisels, arrow heads, spear heads etc. Some remains of ploughshares also received from Wayanad and

⁷⁸ M.Wheeler, *Early India and Pakistan: To Ashoka*, Newyork, Praeger publishers, 1959, pp.37-56.

⁷⁹ D Ilip.K.Chakrabarti, *The Early Use of Iron in India*, Delhi, Munshiram Manoharlal, 1992pp.114-124.

⁸⁰ R.N. Mehta K.M. George, op cit., pp. 3-4, 17.

⁸¹ K.Jayasree Nair, "Interpreting the Kerala Megalithic tombs" in Dr.K.K.N.Kurup (ed.), 'New Dimentions in South Indian History' University of Calicut, Association for Peasant Studies, 1996, pp.10-11.

Palakkad⁸². The model of a ploughshare in a rock-cut chamber was obtained from Angamali.⁸³ Vibha Tripathi says that the development of iron was not happened in a single stage, it has so many stages. She point out that the varieties of iron was happened during the second stage of development.⁸⁴ A blacksmith has significant capacity to make iron as free from impurities and they keep it as technologically high procedure and may be due to these high technological skills, these procedures that may have existed for a long period.⁸⁵

The blacksmiths are called as, *Kollan* or *Perumkollan* in Kerala. In Malabar area the iron making surfaces were called as *oothala* or *ala*.⁸⁶ But nowadays most of the blacksmiths were involved with sharpening of the tools and make tools with very less quantity.⁸⁷ In Sangam literature, we find so many references regarding the existence of iron workers and about the peasants who lived at that time. The peasants called, *Ulavar* is believed to use plough. Like that the group of people called *Vetci* (cattle raids) is found. Some says that the grave goods included more weapons than tools which used for agricultural purposes. Regular wars fought between chiefs were mentioned in Sangam literature. PN 316 mentioned about iron sole and PN 312 says it was the duty of the smith to make a vel for war. That line is like this, *velvadithu koduthal kollar*

⁸² B.K.Gururaja Rao,(ed.), *Megalithic culture in South India*, University of Madras, Prasaranga publications, 1972, p.265.

⁸³ *ibid.*, p.267.

⁸⁴ Vibha Tripathi, “Genesis and spread of urban processes in the genetic plain” in Sengupta and Sharami Chakrabarthy(ed.), *Archaeology of Early Historic South Asia*, New Delhi, Pragathi, 2008, pp.163-164.

⁸⁵ K.N.Ganesh, *Keralathinte Innalekal*(Mal), Trivandrum, Department of cultural Publications, (1990), 1997 p.28.

⁸⁶ Velayudhan Panikkasser, (ed.), *Sancharikal Kanda Keralam*(mal), Kottayam. Current Books, 2001, p.416.

⁸⁷ V.H.Dheerar, *OOthala*(mal), Kannur, Samskrithi Publications, 1995, pp.63-64.

kukkudane. PN 202 says - *Kollan mithikuruk Uthu Ulai pithirvin pongi* by mentioning furnace. PN 42, 23 etc also mentioned about *Kanichi* to use cutting wood in the forest.⁸⁸ AN 74 mentioned *Kodunkol* that was used by the cowboys. It could be an iron rod.⁸⁹

When speaking about the technological use of megalithic society, in one way they maintained an advanced level of living conditions than their pioneers. Of course the widespread use of iron may bring some kind of advancement than the previous cultures. It doesn't mean that they maintained a technologically advanced community life at that time. But probably the understanding of smithery, carpentry, pottery making, stone cutting etc may have existed. Like that the grave goods indicate the use of various types of metals other than iron in megalithic period. Copper, Silver, Bronze, Gold etc strengthened the interference from other part of the world in various ways. The remains of smelting furnaces, iron ore pieces, slags, copper slags etc propagate the possibilities of the existence of smithery here. Iron axes, sickles, hoes, spades etc make the archaeological remains as rich in its use of metals at that time. Bronze was received from Adichanellur and Nilgiri sites, and along with this the bowl made with Bronze was reported from Thiruvilwamala in Kerala too.

There is a possibility of the existence of wooden crafts or carpentry. The tools like axes, chisels, anvil, hammer stones etc may be used as tools for carpentry. The wooden posts may have used for making a roof at that time. The area included the river basin of Bharathapuzha is enriched with the distribution of megalithic monuments. Detailed lists of megalithic monuments in these areas were added later.

⁸⁸ V.R..Parameswaran Pillai, PN, Thrissur, Kerala Sahitya Academy, 1997 (1969),pp.78-104.

⁸⁹ Nenmara P.Viswanathan Nair, AN, Thrissur, Kerala Sahitya Academy, 1983. pp.120-156.

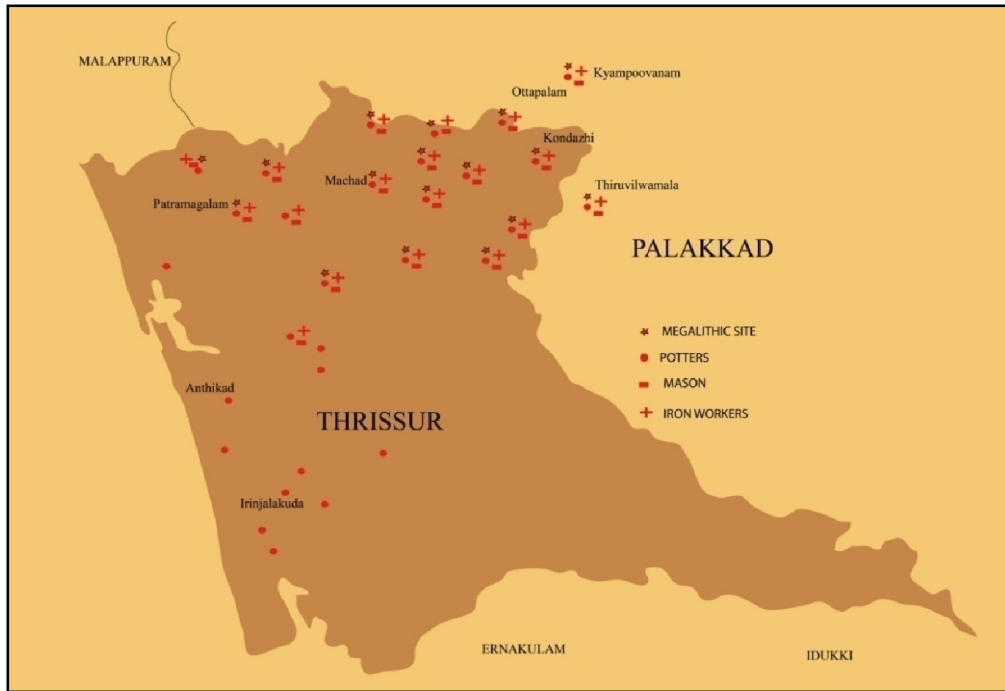


Figure 12(a): A map which showing the settlement of craftsmen in megalithic distributed area of the river.



Figure 12(b): A Map which showing the settlements of craftsmen groups and megalithic monuments in Bharathapuzha basin.

The people who worked with iron are called Blacksmiths. Blacksmiths make many types of tools and weapons out of iron, the harder material of the world. From the evidences it is thought that in India, the megalithic period marked the beginning of this kind of smiths and found the making of so much of tools at that time. According to Hindu mythology, *Viswakarma* is the blacksmith of 'Devas'. Unlike other parts of Europe and other Western communities, Iron was the prime factor in the megalithic period of India. The megalithic monuments were distributed more on various parts of South India and here found much of sources for iron. In Kerala, the remains of the residence of Iron Age people received only from Pattanam. But in Kerala the land was suitable for the availability of iron because the soil was rich with the content of iron and a possibility is there for the local development of iron technology in South India. People who worked in the field of Sangam literature say that there are much references regarding the use and making of iron by blacksmiths. Like that the works from Europe like '*Historia Naturalis*' also mentioned about the export of steel from South India to the Roman Egypt. The excavations and explorations conducted at Paiyampalli, Appukallu, Dharmapuri and Coimbatore help to understand the local availability of iron from here.⁹⁰ Roman literature mentioned that the Chera territory of South India was the centre of iron and its port Muziris played an active role in the marine trade from here. The iron and steel furnace from Kodumanal revealed the technological skill of the ironsmith of this place.⁹¹ All these support the notion of this study regarding the local development of iron

⁹⁰ B.Sashisekharan and B.Raghunatha Rao, "Iron in ancient Tamilakam", in Forum of Research Associate, INSA, Madras, Indian institute of Technology, 2007, P.201.

⁹¹ *ibid.*, pp. 202-204.

technology may have helped the spread of the use of iron and this wide use may have supported the burial culture and the use of big stones to construct the monuments like this. Tripathi is of the opinion that the processing of iron happened through three stages. Early phase probably covered a period of 7th to 6th century BC. Middle Iron Age is from 7th-6th to 2nd -1st BC. Late Iron Age is developed after 2nd century BC'.⁹² The wide use of iron could have helped the people to cut stones more easily and probably the hardness of iron forced people to use it in their day to day life of that time and may continued it in to the generations. The megaliths of India and the availability of iron from its graves are notable and it was found to be distributed from Vidharbha site to Adichanelloor in Tamilnadu. The finding and using of this metal was crucial and another interesting thing is why this metal did not make a drastic change in the pattern of housing at that time.⁹³ So one thing is almost sure that not the technology or the skill of a labour can determine the structure of a society, possibly the ritual or beliefs of the human beings had a great role in that.

The making of iron was a complicated process and it needs almost 2020 degree Celsius to melt iron, separate it from ores and convert in to a useful product. So the possibility for an accidental finding of the technology is very low. Unlike other grave goods, iron technology might have concentrated in areas with abundant iron deposits and skilled craftsmen who could smelt iron in furnaces to produce purified iron. Such iron furnaces have so far been located in Kerala, what we find are waste iron slags that are the remains of tool making.

⁹² V.Tripathi, *History of Iron technology in India*, New Delhi, Rupa & co, 2008, pp. 54-58.

⁹³ Vikas Kumar Sharma, *Megalithic culture of the South India*, Ramjas college Delhi University, 2010, pp.58-67.

The incidence of *Oothalas* in different parts of Kerala also points to this practice. Reference to blacksmiths or *Perunkollans* in Sangam texts may point to this practice.

When going through the grave goods of burial monuments it is found that so many divisions of labour or technologies prevailed at time. Carpenters, blacksmiths, gemstone workers, goldsmiths, potters etc are some of them. A society with all these kinds of technicians molded the total structure of the society. The making of this kind of monuments demanded the collective work force of all these technicians. Korisettar who worked in this field argued that the burial monuments were not made for commoners, it probably constructed for elite strata of society.⁹⁴ The need for collective workforce is the possible reason to make him this kind of an observation. Like that he says that probably the megalithic people believed in life after death. R. K. Mohanty also has shared the same kind of opinion regarding the belief in life after death.⁹⁵

The technology called iron making and stone cutting (masons and blacksmiths) has equal importance in the making of a burial monument in that period because the cutting of huge stones for the construction of monuments needed both technology and human power. Korisettar says that the separation of huge rocks for the construction of making burial is possibly done through the primitive mining technique. The fire was set; rocks were heated to the desired

⁹⁴ Ravi Korisettar, "The Archaeology of the South Asian Lower Paleolithic:History and Current status" in S.Settar and Ravi Korisettar(ed.), *Pre-history Vol.1, Archaeology of South Asia*, ICHR,Manohar, 2002,pp. 1-55.

⁹⁵ R.K.Mohanty and Selvakumar,V, "The archaeology of the Megaliths in India 1947-1997", in S.Settar and Ravi Korisettar (ed.), *Pre-history Vol.1, Archaeology of South Asia*, ICHR,Manohar, 2002,PP.317-323.

level and cooled rapidly. The immediate change in the temperature causes the rock to break off easily. This was the technique applied in previous times onwards.⁹⁶ The iron making could be practiced by the Indians itself. At least some tribes here practiced the making of iron in local level. It doesn't mean that this technology was originated here. Certain adaptations were happened among the technicians in the case of technology and its use. Mundas of East, Agaria of Andhra, Madhyapradesh, Eastern UP, Bihar and Orissa were the tribes who practiced the procedures for making of iron in India. The iron making furnace found in *Naikundu* (one of the megalithic sites) was notable. All these indicate the possibilities for a local development of iron in India. It is considered that the richest deposits of iron ore is found in India at Bihar, Madhyapradesh, Orissa, Maharashtra, Mysore and Malabar area of Kerala.⁹⁷ Banerjee is of the opinion that the possibility of indigenous production of iron existed on here. Obviously the Iron found in this area played a role in the making of megalithic burials in South India. If we take the case of iron implements from Kerala, the results of scientific excavation showed that the content of iron was so rich. The case of iron from Pazhayannur site is a best example and 99 % of purity was reported from this site.⁹⁸ It is found that the iron found in the area like Mysore, Shimoga, Dharwar, Ratnagiri in Maharashtra, Salem and Thiruchirappalli in Chennai and Guntur in Andhrapradesh and the iron distributed in Travancore and Malabar in Kerala was rich with the content of iron like Magnite and Haematite.⁹⁹ The question, however, remains whether iron smelting was popular in Kerala or the

⁹⁶ N.R.Banerjee, *The Iron Age in India*, Delhi, Munshiram Manoharlal, 1965, p.209.

⁹⁷ N.R.Banerjee, *op cit.*, p189.

⁹⁸ K.M.George and R.N.Mehta, *op cit.*, p.15.

⁹⁹ *Op cit.*, pp.190-191.

making of iron implements from already purified iron procured from outside. There is sufficient evidence on the latter from later practices, but former awaits confirmation.

Certain interviews and field works were conducted as part of this work for the understanding of the beliefs and practices of the community who settled near the river basin of Gayathri. Based up on the remains from grave goods in the area of study some efforts are made to trace the settlement details of the communities like potters, blacksmith, masons etc. Settlements were found on large scale in these areas.

IRON SMITHS ON THE BASIN OF GAYATHRIPUZHA

This area is lying so close to the basin of river Gayathri and found that here are some groups of families who still follow the job traditionally as making of iron tools, weapons and other kind of equipments. The age old men and women of their family shared their childhood memories and shared the technologies which they used and the changes came in that. With the communication with them it was able to trace the places where their settlements still exists. Here it is mainly focused on the settlements on the basin of river Bharathapuzha and Gayathri.

The blacksmiths were generally called as *kollan* in Tamil and also called as *Kammalan*. Most of the members of this community believed in their origin from Tamilnadu and other parts of South India. They also have shared the myths about their origin and settlement in here. When we go through their beliefs and rituals, found that most of them have more similarities with the rituals of other parts of Tamilnadu. Like that they considered that the crafts were based up on certain kind of divine rituals and a woman in her menstrual period were not

allowed to enter in to the *aala* of the smith. It was a male dominated society and unlike potter communities', women have very less role in the production processes of iron tools and weapons. Some kind of purity and impurity concepts are found to be followed by them.



Figure 13(a): An iron smith in his 'aala'



Figure 13(b): Iron tools made by a smith of river Gayathri basin

The period of the development of iron made drastic change in the use of various types of weapons for war, agriculture, for homely purposes, hunting etc. But no effect was found up on the construction of houses at that time. The makings of burial monuments were not so simple to make and some of the structure showed

the technical skill of the people at that time. Due to the absence of a lasting house pattern it is believed that most of the homes were made out of wooden posts and roofs, it was perishable in nature.¹⁰⁰ So probably the technicians like, carpenter, smiths, mason etc worked together for making their life and believes possible.

The construction of various types and size of monuments showed the development of technology at that time. The types of burial monuments like Dolmens, Cists, Rock-cut Chambers, Menhirs etc indicate the techniques which they used on cutting the stone for this. A mason's job is highly risky and needs high skills. Their job is not completed when just cutting the rock for a monument. It was finished only when shaping stone and certain marks and port holes were found in some cases up on the orthostats of the burial monuments. The blacksmiths of Gayathripuzha basin says that from many hundreds of years back onwards they used pure iron slabs from Tamilnadu for making tools and artefacts. At the same time we collect iron slags from the basin and when showed it to them, they agreed it as iron slags but doubted whether this can be moulded into an iron tool of desired quality. The technology available with their *aalas* is not conducive to such a process, and they could not remember any such process being used at least from their grandparent's times.

Many references were found regarding the making of iron implements in several times. PN.95:5 (*Kotturai Kuttala*) was translated as 'the workshop of a blacksmith who make iron implements. PN.353:1 (*Porkollan*) who makes weapons for war. PN.36:6 (blacksmith preparing axe), PN.170-16 (*Karankai kollan*) AN72:5 (mentioned about the making of iron)¹⁰¹

¹⁰⁰ N.R.Banerjee, op cit., p.209.

¹⁰¹ *ibid.*, 175-180.

Stone cutting is another technology that could have prevailed at that time because cut marks by the side of megalithic monuments are found in the surroundings of so many sites (rock exposed area). Like that, rock cut caves and laterite stones were shown as the better example for this.

Settlements of Masons on the Basin of Gayathripuzha

This study also tries to locate the settlements of the masons in the area of the basin of Gayathripuzha. Most of the present stone workers have made it for the purpose of house construction and some have made it for architectural purpose. Idols and some worshipping stones for temples are largely making now. It is able to locate the settlement of the community belonged to Masons called *Moothans* at the nearby areas of Gayathripuzha itself.¹⁰² Apart from the tools made with iron they also used some kind of technologies to separate the stone from a huge rock. They used Coals to make dynamic power to cut the huge stones and make it pieces. But in the case of Megalithic monuments it is found that the orthostats were cut with high technical skill and in some cases found the cut marks up on the nearby rocky surface. (settlement area- Meetna, Kalkkuzhi, Ambalapara, Mayannur, Pallam, Cheruthuruthi, Shornur, Thiruvulwamala, Tholannur, Chittur etc). They used largest hammers for cutting the rocks as well as laterite stones. It is made clear that the settlements and the distribution of map connect with each other. Of course there existed certain kind of periodical differences but the technology was almost same and these entire craftsmen group has a background of migration and they still followed a mixed culture. There is a reason to think like this because the base of all technologies is the same apart

¹⁰² Interview will be conducted with Mr.Radhakrishnan, member of this 'Moothan' community and many families belonging to 'black smith' community also found here.

from its periodical and spatial differences. Like that the only available literary sources like Sangam literature clearly indicate the people who perform as potters, iron smiths, masons, hunters, agriculturists etc. Along with this the geographical significances also support this kind of observations.

Movement or Migration

The people of these communities shared something from their memories and say that in earlier days, the potters, as a specialist group of artisans, seem too had lead a nomadic life, which set out to rural villages in search of their resources and output. The potters of our area says that even some years back the potter and his wife head loaded the pots and wandered different parts of the villages by foot. It may have helped them to make cultural contact with the people of different areas. Some accounts shed light on the movement of pots or potters in older days. In India the first evidence of carrying pots on ships comes from Ajanta paintings (6th century AD). The varieties like BRW, Rowletted ware etc were excavated from the sites of Pattanam, Srilanka, Java, Sumatra etc. Like that RCP (Andhra wares 400 BC-400 AD) was collect from Brahmagiri, Nasik, Karnataka, Kerala and also abroad. From these we are forced to conclude that there occurred a possible migration of technology as well as the actual artisans.¹⁰³ Dr. Selvakumar argued about the similarities of paddle find in Andhra with it found in Kerala too. These kinds of migration stories were same in the case of other craftsmen communities too. The distribution of similar nature of monuments, grave goods, settlement patterns of these craftsmen groups all support the movement of people.

¹⁰³ Marilyn p. Beaudry, et.al., "Traditional Potters of India", *Ethno Archaeological Observations in America*, vol.29, No.3, pp.59.

Corroboration of Archaeological and literary sources in the context of Megalithic burials

The area of present study probably comes under the rule of Cheras and the only available remains which indicate this period is the burials. So the burial and the study about its grave goods are considered to be important for understanding the past of the people in Kerala. Sangam poems mentioned some elements about the social life of the people at that time. It is sure that the division of people based up on caste or communities with today's meaning were not found in that time. But the divisions like *Pana*, *Kuravas*, *Parayas* were considered to be enjoying a position in the court of king as the poets like Kapilar, Paranar etc were considered to be enjoying a position in front of king. So divisions like *Uzhuvar*, *Thozhuvar* etc indicate the possibility of a division based up on their labour or the physical efforts by them at that time. Generally the people who worked in the early history of Kerala considered now that the large distribution of burials and its rich grave goods showed the possibilities for the existences of technology at that time. From the references of Sangam literature, it is considered that Chera territory was notable with its products like Pepper, Turmeric, Jack fruit etc. Like that the terms like *Kozhu or Kalappa and some other tools* were found to be mentioned in the Tamil literature and it supports the possible practice of agriculture at that time. Another type of tool like *kanichi* is found to be used for breaking the stones at that time¹⁰⁴

The finding of post holes were reported from various sites of Kerala like Anakkara, Chiramanangad and many of them were from the basins of river

¹⁰⁴ *ibid.*, pp. 156-157

Gayathripuzha like, Tholannur, Kuthannur etc. These support the evidences from literature that the huts with thatched roofs and supports by wooden posts. Recently so many postholes were revealed through the explorations at Vendallur in Malappuaram which also belonged to the basin of river Bharathapuzha.¹⁰⁵ The finding of megalithic burial monuments along with these post holes supports the presence of human beings at that time. Post holes were reported from various parts of Palakkad, mainly from the river basin of Bharathapuzha. The presence of post holes were not to be limited in the area of Kerala, it was also reported from the excavated sites like Brahmagiri and Maski. The observation by S. B. Deo was seen as an interesting one in this context. He pointed out the existences of effective levels of wooden architecture at that time.¹⁰⁶ Such kind of observation is an important one. But the absences such kind of evidences may keep us far away from reaching a conclusion like that. Probably the post holes indicate the possibility of semi-settlement here. The absence of the remains of other habitation may prompt us to reach the possibility for the movement of people through these areas and the people who lived with these technologies also supports this notion. They may have used one place for living for a long or short period of time according to the availability of materials. Sangam sources give so many references about the movement of traders, craftsmen groups and warriors for different purposes. Another important thing which supports the movement of craftsmen is the grave goods of burial monuments in all parts of the world. This study intends to have questioned the concept of the 'absences of habitation' and

¹⁰⁵ Abdul Latheef Naha, "Megalithic Pits Found at Vendallur" The Hindhu, in May 15, 2017.

¹⁰⁶ S.B.Deo., *Megaliths in India*, in South Asian Archaeological Congress, New Delhi, 1986,P.87.

like that this work clearly pointed on the remains of burial was the clear indication for human presence here.

In another sense the area which we selected for study is significant, due to the importance of its geographical peculiarity. Along with geographical peculiarities the availability of raw materials like minerals, water, hard granite and laterite stones, iron deposits (haemetite), abundant vegetation, clay, etc may have attracted the attention of the early settlers to this place. Along with that the pass on Western Ghats could have made the possibility of the transfer of technology easier. It is already mentioned that the availability of water, iron, clay, wood all must have supported the beginning of a camp site in here for the skilled people. That technology was of course transferred to the indigenous population means a kind of absorption must have happened with each other. When taking in to consider the case of potters it was found that clay and kiln were available locally. At the same time we have received so much iron implements and the smiths says that, deposits of iron is found here, which must have been used for the production of some small things, but that was not suited for the production of implements in large scale. Like that in Kerala we have not received the remains of furnaces like that of Kodumanal, which is a neighbouring region of our study area. The availability of furnaces in Kodumanal may support a kind of link between both these regions. The possibility of bringing iron from there is a strong possibility. All these materialistic conditions must have prompted the people to select this area as camp site in a temporary or permanent basis. Like that the craftsmen who settled here claimed their settlement from a long time onwards. It was the feasible reason for the development of a settlement in here.

All this points the prevalence of a semi-permanent settlement of a campsite, which is probably represented in the term '*kuti*' mentioned in the Sangam texts. One thing is sure that, the satisfaction of the needs of human beings through the materials on nature is the ultimate aim for human beings' intervention on nature.¹⁰⁷ Karl Polanyi advances through his studies, the notion called 'locational movement', through which he supports the change of location by human beings for production or some other reasons which was relating with human beings want. In another way he says that in every society people moved for the materials which satisfied their demands. When discussing about the trade in early period he says that, the movement of traders, never meant the movement of an individual, obviously it was a movement of a group of people or different communities for certain needs. He strongly emphasized 'material and want satisfaction' as the reason for the movement of a community in every society.¹⁰⁸ Sangam literature is considered as contemporary to Megalithic period which also supports the movement of heroes for earning their lives.

Through the field works and archaeological reports of the study area, it is understood that there found huge distribution of burial monuments. Of course those monuments need some kinds of technology for making this. Apart from the typology of the monuments, it contained artifacts of iron, pottery, gold, bronze, led, copper and varieties of beads. Among these some are seen as local and most of them are from outside. In varieties of beads only the quartz and beryl

¹⁰⁷ Karl Polyani, "The Economy as Instituted Process" in Karl Polyani, Conrad. M. Arensberg, Harry. W. Pearson (ed.), *Trade and Market in the early empires- economics in History and Theory*, A Gateway Edition, Chicago, Henry Rognery Company, 1957, p.240.

¹⁰⁸ *ibid.*, pp.245-264

(Coimbatore) are available in locally and other items had to be brought from other parts. Like that pottery was probably made with locally available clay and some exceptional are found in the case of Rouletted Ware (RW) and RCPW. Iron objects may be made with locally available iron and at the same time smiths of the area opined that they brought iron bar from outside and create implements according to the demand of the people. It was a clear indication for the relation with outside.

The typology of burial monuments showed that the use of indigenous stones for its construction. For example, the types of monuments like Kudakkals and Thoppikkals might have migrated through overseas contacts and others were may happened due to the contacts by overland. Thoppikkals and kodakkals were carved out of laterite, and hence, even if the technology and belief systems of the people who used them were brought from outside, their skills were indigenized and used by and for local people. It showed that may be in the beginning stage the technology, ideas or skilled people were migrated from outside according to the availability of raw materials and other favorable situations. But latter they were absorbed by the indigenous people and at least in the case of some skilled works the indigenization is happened. The role of Palakkad pass for the migration of ideas, skills, technology, human beings etc is probably very important one.

R. N. Mehta and K. M. George's report also supports the possibility of a migration in to Kerala from Tamilnadu, he said this occurred due to the similarity found in the typology of megalithic monuments. But here we apply this in the case of pottery. We already mentioned about the dry climate of

Palakkad which is did not favour the making of huge urns. This resulted in making the potter's movement more feasible. They wanted to make more durable potteries, so they gradually moved close to coastal area. Here in the coastal area, we get the remains of huge urns than high or hilly landscapes. The potteries available from the site of Porkkalam and Eyyal are noticeable. Remains of huge urns were unearthed through excavation. These observations also support the possibilities of migration.¹⁰⁹ So the references from Sangam also help the co-relation between artifacts and linguistic references. This is a point that is hoped to demonstrate through subsequent explorations and scientific analysis.

¹⁰⁹ B.K.Thapar., "Porkalam 1948: Excavation of a Megalithic Urn Burial", in *Ancient India*, No.8, 1949, pp.53-56.

T.K.Venkada Subramanian, "Politics, Culture and Caste in Early Tamilakam", *SIHC*, 16th annual session, Gulbarga university, 1996, pp. 342-356.

SUJATHA. K.S. “FORMATION OF MATERIAL CULTURE IN THE BHARATHAPUZHA BASIN DURING THE PRE-HISTORIC AND EARLY HISTORIC PERIOD – A STUDY OF MEGALITHIC BURIALS”. THESIS. DEPARTMENT OF HISTORY, UNIVERSITY OF CALICUT, 2018.

Chapter 5

CONCLUSION

The period approximately from 3rd century BC to 2nd century AD was generally marked as the period of Megalithic. The world has developed before that through many other periods like, Paleolithic, Mesolithic, Neolithic and Chalcolithic, but unlike other periods Megalithic was associated with the construction of huge burial monuments. Like other periods this was spread in to whole other parts of the world. The varieties of pottery like BRW and large scale use of iron tools and weapons was the importance of this period. Unlike other periods, South India was found as the main centre of this burial culture. Scholars like Y.Subbarayalu observed that like previous ‘periods’ this megalithic was not a ‘period’, it was just a transformation of technology.¹ This argument is found as an important one, because this period witnessed huge use of pottery, iron implements, other construction etc. In a sense it was an era of technological invention. The archaeological and its complementing literary evidences mentioned about the practice of trade with other parts of the world too is an advanced one.

This megalithic culture has an important role in the pre or early historic period’s of Kerala. The study based up on the typologies of monuments and its grave goods may help to reveal the past of this geographical area. Megalithic monuments are the only important archaeological sources which indicated something about the pre or early historic Kerala. The grave goods were the

¹ Y. Subbarayalu, “Megalithic Burials and Graffiti”, in Noboru Karashima (ed.), *A concise history of South India*, New Delhi, OUP, 2014, pp. 154-167.

important element of these megalithic burial monuments and it was almost same in the case of all over the world. The uniformity in the typologies of the monuments and grave goods prompted the archaeologists, historians, and anthropologists to enquire the facts behind these practices. Through the existing evidence we never thought that the uniformity of the monuments was an accidental one, because the similarities of artifacts in the other parts of the world clearly indicate the possibility of a relation with all those areas. That relation may happen with the form of movement of technology, skilled groups and ideas. The references from foreign accounts also support the chance for this kind of involvement with other parts of the world. There is no doubt that the things which we received from the graves have a purpose of its own. It is hoped that there is nothing wrong in thinking that the things which they buried in a burial monument is obviously possessed by them in this world and possibly they would not like to leave this in the another life too. The artifacts received by us were a strong indication of a culture by the people at that period. Through these it is possible to understand, the materials have a history and it was surely a part of the culture of people who lived there. The uniformity was not to be seen in its artifacts only; it was same in the case of the shapes of monuments too. The burial monuments silently say another thing, that there lived a group of people with certain technological skills, but it is not sure why they cannot show much interest to build a monument like this for their living. But all these indicate the possibility of the existence a group of skilled people in that region at that period. Based up on these notions, made an enquiry in the study area of the thesis and through this we are able to locate the settlements of craftsmen groups with in the vicinity of the monuments which are parallel to the basin of river Bharathapuzha.

The selection of this area close to the Western Ghats and Palakkad pass is a deliberate attempt from our side. This area was considered as a politically important one from early historic period onwards. The area was actually lying between Ay in south and Ezhimalai in north. Sangam anthologies treat this as a part of Kongu and Chera territory. Obviously we had faced some problems when conducting a study about the significances of craftsmen groups of today with the technology prevailing for many years, but we pointed out the skills of people along with the technology which they acquired on the basis of profession and lineage. Like that some kinds of cultural mixing with other parts of South India were understood through their languages, beliefs and other practices. These also support the possibilities of a migration by the people from place to place in their life time. The area was notable with huge distribution of monuments as clusters, the area was considered to be lying on a trade route which connected the ports from Kaveripattanam to Muziris. This movement of people for trading purposes might have a role in the presence of craftsmen groups present here along with the distribution of megalithic monuments. The surroundings of the monuments demanded a special attention, because the area was surrounded with forest and this may helped the people of hilly areas to lead their life without the spread of agriculture in those areas. The hills were possibly giving the things for their living and they may be engaged on the exchange of hill products with the foreigners and the people from plain land. All this supports the possibility of the development of a material culture from early historic onwards. In the case of South India such kind of efforts came from the sides of U. S. Moorthy, Y. Subbarayalu, V. Selvakumar, and K. Rajan. They connected the geography, history, literature and archaeology in to a single platform and began to look the

burial culture with a new eye. But only few such efforts were happened in Kerala.

This study was an attempt in such a way and has tried to utilize the peculiar geography of the study area and have used certain similar observation for a comparative study in this field. The customs related with death and funeral still exists among the people of all types without any distinctions like religion, caste, community etc. People of Kerala and South India still follow certain kinds of rituals and customs relating with the burial practices of their society. But here, used this stream of knowledge for tracing its technological similarities which were understood through its grave goods because on looking the 'material culture' of this burial system, the importance would go to the grave goods of these burials than its origin and typological similarities.

From the references of foreign records and the availability of the remains of Roman artifacts, it is generally considered that Kerala has maintained a role in the trade relations of that early period. The ancient foreign writers like Pliny, Ptolemy and the author of the work 'Periplus of the Erythrean Sea' also mentioned about the existence of trade relation of Mediterranean world to the Peninsular India from the ancient time onwards. The references of the term *yavanas* were found in Tamil anthologies, and that mentioned the people from the Mediterranean world. Like that in Kerala, the recent excavations held at Kodungallur was generally accepted it as the ancient port city, Muziris of Chera territory and much beads were collected from here. The historians like Raghava Varrier and Rajan Gurukkal supported the possibilities of the existence of a bead making centre there. Probably the semi-precious stones were exported from somewhere. The same was happened on the ancient sites like Arikamedu,

Karaikadu, Kaveripoompattanam and Alagankulam. From all these sites the excavators received so much of beads and its slag.² Possibly all these ancient sites have played a role in the trade relation with other part of the world and may be in internal trade. All these indicate the existence of skilled people at that period. The Availability of Roman coins from Eyyal and Coimbatore also have indicated something about the existence of trade relation. So here with the evidences of these craftsmen settlements and frequent distribution of monuments may prompt the possibilities of the presence of these skilled people in that period. Above that the frequent distribution of the burial monuments itself was a clear indication for the presence of human beings in here at that period.

Certain similar observations were found from the archaeologist K. Rajan. He observed that the area called Coimbatore was notable with its geographical peculiarities and material richness; it means the iron ores and semi-precious stones were largely located here.³ The study area of this thesis is not far away from this Coimbatore region and has shared some geographical peculiarities in common. The excavations held at Kodumanal was the great contribution by K. Rajan and from the available evidences of there, he viewed that the society of early historic time was not much backward at that time. For that he showed the remains of furnaces and other metals which were collected from there. Like that he argued that the availability of precious and semi-precious stones like Carnelian, Lapis lazuli, Agate, Beryl etc from the megalithic burials of Ancient

² K. V. Raman, "Further Evidences of Roman trade from Coastal sites in Tamilnadu" in Vimala Begleyand Richard Daniel De Puma(ed.), *Rome and India- The Ancient Trade*, New York, OUP, 1992(1991), p. 184.

³ K. Rajan, "The emergence of early historic period in Tamilnadu", in *Tamilnadu History Congress Journal*, 2005, pp. 212-214.

Tamilakam and all over South India clearly indicates their relation with external part of the world.

Like that here in Kerala, only some surface explorations were being conducted and have not much scientific excavations were conducted here. The two important excavated sites of Kerala, Pazhayannur and Machad was included in the geographical boundary of this river Bharathapuzha and Gayathripuzha, have shown a great level of technology and the purity of the available artifacts is high with its material richness. Based up on these kinds of observations, here the thesis is going to conclude by saying that the possibilities of agrarian expansion and more settled life may not happened at that period, but it is possible to say that Kerala was not an untouched area for human beings in the early periods and surely there existed certain possibilities of population movements and temporary camp sites which might have facilitated the growth of technologies for livelihood, skilled professions and trade. People who possessed such technology were responsible for the numerous burial sites found in clusters or as individual site around this area. The settlements of these skilled people with mixed culture found in the vicinity of these clusters clearly support our notion regarding this. A look up on the geographical importance of the study area, the presence of Western Ghats, Palakkad pass, huge distribution of monuments, the possible trade route which connecting the ancient ports like Kaveripattanam and Muziris, foreign records with the craftsmen settlements of these area prompt us to the possibilities of a material culture in Kerala from early historic period onwards.

The details of the number of sites and places were available through the lists of Robert Sewell and the survey of various other agencies like Archaeological

Survey of India, Kerala State Archaeological Department etc. It was understood from these lists that the distribution of monuments in these areas were not an accidental one and the monuments were found to be distributed frequently in these river basin. The large distributions of grave goods in the river basin were taken as an indication of the spread of technology at that time. It is need to understand the possibilities for the existences of certain technologies present here for understanding the material culture of this burial system. This study is not trying to place the origin and practice of technology from an indigenous level but never discriminate the chance for that.

It was already mentioned that the scholars like Gordon Childe, Willey, Meadows Taylor, Alexander Rea etc shared their opinion regarding the origin of megalithic practitioners from various parts of the world. The unanimity seen on the burial monuments of various parts of the world supports the possibility of transformation of technology and through this the migration may happened.

These are the general condition of debates existed between scholars regarding the origin of this practice. Through the distribution of monuments it is found that some types have shared similarity with other areas. Dolmens were found to be distributed in Tamilnadu, Passage chamber tombs in Karnataka, Urns in all over the coasts. These are the certain commonalty found in the typological pattern of those monuments; this indicates the connection with overland areas. The monumental types like *Kudakkals* and *Thoppikkals* may indicate of overseas relations and transfer of technology. These are the certain views found to be relating with the origin of this practice. Above that we cannot receive any political evidence to support its origin; even Sangam texts also keep silence in it. The early

historic Kerala has always in an allusion of Chera dominance but that also was not covered the whole part of present Kerala.

All the existing arguments have supported the notion of migration, but it is not feasible to say that human population is scarce in here during early historic period. Distribution of megalithic monuments goes against such a conclusion. An answer to this problem is inevitable for a better understanding of the problem. In this context, we are forced to depend the monuments and grave goods for tracing the past. The similarities on monuments and grave goods support the possibility of the migration of technology, skilled people etc. So for a better understanding in this way, here Bharathapuzha basin, its monuments and the settled craftsmen groups are selected in this study. 'Regressive method' used by ethno-archaeologists is applied here for understanding the problem.

Based up on the field works and received information, it forwards certain possibilities. Of course it needs further additions through latter discoveries and researches. But certain possibilities are here:-

- The gap on the Western Ghats, which was in Palakkad may support the movement of people from rest of the part of South India in to Kerala and vice versa:- Palakkad gap the largest opening of Western Ghats has an important role in the moulding of human beings from the very beginning itself. The availability of Roman coins from Eyyal in present Kerala and Coimbatore basin also support the movement of population through this pass.
- The nature of population in these geographical areas may have supported the possibilities of a homogenous culture: - The craftsmen groups in these

areas may support the possibility of homogenous culture. The similarities were found in the case of pot making, making of iron implements etc. Like that the cultural and beliefs of these craftsmen groups were seen as similar with other parts of South India. The craftsmen groups like potters and Masons worshipped certain deities like *Mariyamman* and *Karuppaswamy*, which was not so common to the present Keralites. All these showed certain homogeneity in their way of life. Almost all craftsmen communities claimed their beginning from other parts of South India like, Andhrapradesh, Karnataka and Tamilnadu. Their language, culture, rituals, beliefs etc support this homogenous nature.

- The craftsmen communities belonging to this region have been practicing craft technologies as their way of life even now. For example, the people from Potters community, Black smiths, Masons, Gold smiths are largely settled here. Many megalithic burial sites were traced from the locality of their living place: - The pots made by the craftsmen community in present have showed similarity with the monuments of the burials also help to understand the connection between the skills and technology of its production. It is already says that the varieties of pottery like BRW and Red Ware may found as local in production and others like RCPW and RW as non-local items. It is migrant artisans might have adapted their technologies in relation with the resources available here and might have passed it on to their descendants as well as local population. However, for those products for which indigenous products were not available they had to depend on resources transported from outside.

- The huge distribution of monuments and the people with technological awareness of this area may have able to connect with each other: - The burial monuments of early historic period claim some technologies which are may be indigenous or from outside. But when the technology was came from outside of course there is an indigenous population. Probably the indigenous people may absorb this new migrated technology and make it as theirs or the skilled migrated people may settle in here. In certain cases, as in the case of the blacksmiths and masons, technology may remain among the skilled people, which may be called as craftsmen community.

It is never intended to say that the people who settled on the basin of river Bharathpuzha were the actual successors of the people who practiced these technologies in megalithic period. But at least in our study area for certain commonalities with Tamilnadu and other South India states were found, which signify a series of migrations.

It is very different at the present stage of our enquiry to identify the migrants. It is possible that the relationship was mainly with the Tamil country. But the migrants could have included traders, artisans and common people from different parts of India as shown by the incidence of Carnelian and RCPW. It is also impossible to say whether the migrants were Aryan or Dravidian, because of the varied types found in the Bharathapuzha basin. But the important feature is the close relationship that the basin had with the adjacent Coimbatore, Erode and Salem districts. This close relationship encourages the possibilities of camping and settlement which is also indicated by the numerous references to people who

migrated through the passes. (*Churamiranthor.*), in the Sangam texts. Reference to the Western land also '*Kudapulam*' in the same text indicated this process. The study of grave goods in the excavated sites and the results of the surface explorations and the study of artisans groups conducted in the present thesis also point to the same direction.

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Glossary

GLOSSARY

1. Mana - House.(In Sangam anthologies the term ‘mana’ is generally referred to houses, however this term began to be used in reference to ‘Namboothiri’ households later on).
 2. Kammalan - Craftsmen.
 3. Asari - Carpenter.
 4. Moosari - Bronze smith.
 5. Kallasharis/Moothan - Masons.
 6. Chetti - Trading groups.
 7. Cherumar/ Pulayar/
Panar - Primary Producing classes.
 8. Kutis - Lived spaces.
 9. Kumbharas/Velan/
Vodayars/Anthurans - Different groups within the potter’s community.
 10. Thara - Settlement area of the people who belonging to same community.
 11. Gappa - Bamboo basket.
 12. Aala - Working space of Ironsmiths.
 13. Oothala - The techniques like furnace were used here, for the production of iron implements.
 14. Kudapulam - Western land.
 15. Kudam - Water Pot.
 16. Thazhi - Large pot made with clay.
 17. Parambu - Elevated land.
 18. Ula - Furnace
 19. Kozhu - Plough
 20. Mudumakkatali/
Immayatali - The large pot used for the cremation of old people
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Appendices

Appendix- 1

MEGALITHIC DISTRIBUTION OF THRISSUR DISTRICT

Sl. No.	Site Name	Co-ordinates	Taluk	District	Type of Megalith
1	Kandanaseri	10°35'51"N, 76°4'46E	–	Trissur	Umbrella stone
2	Kudakalluparambu	–	–	Trissur	Megalithic structure
3	Cheramangad	–	–	Trissur	Megalithic structure
4	Kakkad	–	–	Trissur	Rock cut chamber
5	Kandansserl	–	–	Trissur	Rock cut chamber
6	Cheramanparambu	–	–	Trissur	Dolmen
7	Kottapuram	–	–	Trissur	Dolmen
8	Eyyal	–	–	Trissur	Rock cut chamber
9	Ponnani	10°77'N, 75°09'E	–	Trissur	Rock cut chamber
10	Koonamoochi	–	–	Trissur	Rock cut chamber
11	Chovvanur	–	–	Trissur	Rock cut chamber
12	Kattakampala	–	–	Trissur	Rock cut chamber
13	Choondal	10°37'03"N, 76°05'41"E	–	Trissur	Rock cut chamber
14	Pandupara	10°13'41"N, 76°31'0"E	–	Trissur	Cist & Menhir
15	Pullur	10°22'N, 76°14'E	–	Trissur	Urn burial
16	Varandarapally	–	–	Trissur	Dolmen
17	Kodarunur	10°28'N, 76°12'E	–	Trissur	Menhir
18	Kottanallur	10°17'N, 76°15'E	–	Trissur	Menhir
19	Kunthur	–	–	Trissur	Menhir
20	Pulayakkal	–	–	Trissur	Menhir
21	Vilvattam	10°34'N, 76°15'E	–	Trissur	Menhir & Urn burial
22	Pariyaram	12°5'46"N, 75°19'56"E	–	Trissur	Dolmenoid Cist
23	Karalam	–	–	Trissur	Urn burial
24	Porappukara	–	–	Trissur	Urn burial
25	Nadattara	–	–	Trissur	Urn burial

Sl. No.	Site Name	Co-ordinates	Taluk	District	Type of Megalith
26	Porattusseri	–	–	Trissur	Urn burial
27	Punkunam	–	–	Trissur	Urn burial
28	Peechi	10°32'N, 76°22'E	–	Trissur	Urn burial
29	Nattika Edakulathur	–	–	Trissur	Urn burial
30	Eranallur	10°36'N, 76°8'E	–	Trissur	Urn burial
31	Kanjirakode	10°41'N, 76°14'E	–	Trissur	Urn burial
32	Alur	–	–	Trissur	Urn burial
33	Vellattanjur	–	–	Trissur	Umbrella stones
33	Mullassery	10°32'N, 76°03'E	–	Trissur	Rock cut chamber
34	Venkitangu	10°31'N, 76°06'E	–	Trissur	Menhir
35	Mangad	10°41'N, 76°03'E	–	Trissur	Rock cut chamber
36	Nedumpuzha	–	–	Trissur	Urn burial
37	Angandiyur	–	–	Trissur	Urn burial
38	Nattika	10°24'N, 76°06'E	–	Trissur	Urn burial
39	Vattakulam, Kutteplam	–	Ponnani	Trissur	Rock cut chamber
40	Elanad	–	Talapalli	Trissur	Dolmen, alignments, rock cut chamber and urn burial.
41	Kondazi	10°43'N, 76°24'E	Talapalli	Trissur	Dolmen, alignments, rock cut chamber and urn burial.
42	Machad	–	–	Trissur	Cist & Urn burial
43	Pazhayannur	–	–	Trissur	Cist & Urn burial
44	Koorkuzhi	–	–	Trissur	Dolmen
45	Cheramangad	10°42'N, 76°71'E	–	Trissur	Topikallu, Hood stone, Cairn Circles & burials
46	Kunnamkulam	–	–	Trissur	Rock cut chamber
47	Kadavallloor	–	–	Trissur	Rock cut chamber
48	Kadukkassery	–	–	Trissur	Rock cut chamber & Urn burial

Sl. No.	Site Name	Co-ordinates	Taluk	District	Type of Megalith
49	Eyyal	10°39'N, 76°7'E	–	Trissur	Rock cut chamber
50	Kakkad	10°40'N, 76°04'E	–	Trissur	Rock cut chamber
51	Kandanissery	–	–	Trissur	Rock cut chamber
52	Kanjirakode	–	–	Trissur	Urn Burial
53	Kanimangalam	–	–	Trissur	Urn burial
54	Kattakampal	–	–	Trissur	Rock cut chamber
55	Pazhayannur	–	Taipally	Trissur	Cist
56	Porkalam	10°41'N, 76°05'E	Talapalli	Trissur	Cist, Rock cut chamber, Dolmen, Urn burial, Cairn Circles.
57	Tiruvilvamala	–	–	Trissur	Cist
58	Ariyanoor	–	–	Trissur	Umbrella stone
59	Chovvanur	10°04'N, 76°05'E	–	Trissur	Rock cut chamber
60	Mulankunnathukavu	–	–	Trissur	Dolmen
61	Puzhakal	–	–	Trissur	Menhir
62	Neelaparamba	–	–	Trissur	Rock cut chamber
63	Puzzukkaliparamba	–	–	Trissur	Rock cut chamber
64	Thiruvilvamala	–	Talippally	Trissur	Dolmen
65	Palapilli	–	Mukundapuram	Trissur	Urn burial
66	Chundel	–	Talippally	Trissur	Rock cut chamber , Urn burial
67	Kattakkambal	–	Talippally	Trissur	Rock cut chamber
68	Nattika	–	Chavakadu	Trissur	Urn burial
69	Panjaliipparambu	–	Talapalli	Trissur	Urn burial
70	Ottupulam	–	Talapalli	Trissur	Rock cut chamber
71	Trikur	–	Trissur	Trissur	Rock cut chamber
72	Adirapalli	–	Talapalli	Trissur	Dolmen & Menhir
73	Karikulam	–	Talapalli	Trissur	Dolmen & Menhir
74	Koothandam	–	Talapalli	Trissur	Dolmen & Menhir
75	Mukkathode	–	Talapalli	Trissur	Dolmen & Menhir
76	Munniarathamdam	–	Talapalli	Trissur	Dolmen & Menhir
77	Parambaikulam	–	Talapalli	Trissur	Dolmen & Menhir
78	Pattikad	–	Mukundapuram	Trissur	Dolmen & Menhir

Sl. No.	Site Name	Co-ordinates	Taluk	District	Type of Megalith
79	Venkitangu	10°31'N, 76°06'E	Chavakadu	Trissur	Dolmen & Menhir
80	Busti	–	–	Trissur	Umbrella stone
81	Vellarakal	–	Talapalli	Trissur	Umbrella stone
82	Vellattanjur	–	Talapalli	Trissur	Umbrella stone
83	Anarapakathur	–	Talapalli	Trissur	Menhir
84	Kanjirode	–	Talapalli	Trissur	Urn burial
85	Ponkunnam	–	Trissur	Trissur	Urn burial
86	Velapad	–	Trissur	Trissur	Urn burial
86	Kottapuram	–	Talapalli	Trissur	Cist
87	Choorakattukara	–	Talapalli	Trissur	Dolmen & Menhir
88	Annamanada	–	Mukundapuram	Trissur	Urn burial
89	Chamakala	–	Talapalli	Trissur	Rock cut chamber
90	Cheengeri	–	Talapalli	Trissur	Rock cut chamber
91	Chelakara	–	Trissur	Trissur	Rock cut chamber
92	Chembukavu	–	Kodungallur	Trissur	Urn burial
93	Chenthrapinni	–	Talapalli	Trissur	Urn burial
94	Cherukunnu	–	Talapalli	Trissur	Dolmen
95	Chungam	–	Talapalli	Trissur	Menhir
96	Manimalarkavu	–	Talapalli	Trissur	Urn burial
97	Mannuthi	–	Trissur	Trissur	Dolmen
98	Mattutkavu	–	Talapalli	Trissur	Urn burial
99	Mazhavannur	–	Talapalli	Trissur	Urn burial
100	Moorkandam	–	Talapalli	Trissur	Urn burial
101	Muttam	–	Talapalli	Trissur	Menhir
102	Panayur	–	Talapalli	Trissur	Rock cut chamber
103	Pandukal	–	Talapalli	Trissur	Menhir
104	Panniyur	–	Talapalli	Trissur	Rock cut chamber
105	Paramelparambu	–	Talapalli	Trissur	Rock cut chamber
106	Perinjanam	–	Kodungallur	Trissur	Urn burial
107	Ramavarmapuram	–	Trissur	Trissur	Menhir
108	Sukhapauram	–	Trissur	Trissur	Rock cut chamber
109	Velliyani	–	Trissur	Trissur	Dolmen
110	Velliyani	–	Trissur	Trissur	Dolmen
111	Velur	–	Talapalli	Trissur	Rock cut chamber

Sl. No.	Site Name	Co-ordinates	Taluk	District	Type of Megalith
112	Pukkunna	–	Walawanad	Trissur	Dolmen
113	Elettumattamba	–	Walawanad	Trissur	Dolmen
114	Kariyapattam	–	Walawanad	Trissur	Dolmen & Menhir
115	Melur	–	Walawanad	Trissur	Rock cut chamber
116	Parappukkara	10°17'N, 76°16'E	Mukundapuram	Trissur	Urn burial
117	Varanadarapilli	10°26'N, 76°19'E	Mukundapuram	Trissur	Dolmenoid Cist
118	Cherakunnu	–	Talapalli	Trissur	Cist
119	Matoor-kavu	–	Talapalli	Trissur	Urn Burial
120	Meenakshipethi	–	Talapalli	Trissur	Urn Burial, Cist
121	Nadappakund	–	Talapalli	Trissur	Cist
122	Pazambalakode	–	Talapalli	Trissur	stone circles, Cist, Hood stone
123	Pazhayannu Padam	–	Talapalli	Trissur	Cist Circle
124	Thonnarkara	–	Talapalli	Trissur	Urn Burial
125	Vettilappara	–	Mukundapuram	Trissur	Dolmen & Dolmenoid Cist
126	Pattiyattudukunnu	–	–	Trissur	Cist
127	Irunilankod	–	Talapalli	Trissur	Dolmen
128	Mullurkara	–	Talapalli	Trissur	Dolmen
129	Vazhachal	–	Chalakydy	Trissur	Dolmen
130	Perunkulam	–	–	Trissur	Sarcophagus
131	Kattakampal	–	–	Trissur	Sarcophagus

Appendix 2

MEGALITHIC DISTRIBUTION OF PALAKKAD DISTRICT

Sl. No.	Site Name	Co-ordinates	Taluk	District	Type of Megalith
1	Poothamkiara	–	–	Palakad	Cist and Cairn Circles
2	Peringathikurussi	–	Alathur	Palakad	Rock cut chamber
3	Kalady	10°09'58"N, 76°26'20E	Ponnani	Palakad	Rock cut chamber
4	Elambaulassery	–	–	Palakad	Rock cut chamber
5	Edappa, Mannarghat	11°1'N, 76°17'E	–	Palakad	Cist
6	Vellimazhi	–	–	Palakad	Rock cut chamber
7	Vaniyamkulam	–	–	Palakad	Rock cut chamber
8	Alanallur	–	–	Palakad	hood stone
9	Ungallur	–	–	Palakad	Topi kallu
10	Attapady	–	–	Palakad	Menhir
11	Thachanthukara	–	–	Palakad	Dolmen & Menhir
12	Karunathara	–	–	Palakad	Dolmenoid Cist, & urn burial
13	Vedakkethara	–	–	Palakad	Dolmenoid Cist
14	Naduvattom, Pattambi	–	–	Palakad	Urn burial
15	Karimba	10°57'N, 76°17'E	–	Palakad	Rock cut chamber
16	Kavassery	–	–	Palakad	Cairn Circles
17	Tarur	10°41'N, 76° 26'E	–	Palakad	Cairn Circles
18	Elavancherry	10°35'N, 76 °38'E	–	Palakad	Dolmen
19	Pallasana	–	–	Palakad	Dolmen
20	Eravattaparathy	–	–	Palakad	Cist
21	Kuthanur II	10° 43'N, 76 31'E	–	Palakad	Cist
22	Mundur	10°51'N, 76°33'E	–	Palakad	Cist
23	Padupariyaram I	10°48'N, 76°34'E°	–	Palakad	Cist
24	Thenampathy	–	–	Palakad	Cist
25	Valivallampathy	10 °44N, 76 °51'E	–	Palakad	Cist
26	Alathur	10°39'N, 76° 35'E	–	Palakad	Urn burial
27	Nagalassy	–	–	Palakad	Urn burial
28	Angadi	10° 47;N, 76° 7'E	–	Palakad	Umbrella stone
29	Kapur	–	–	Palakad	Umbrella stone & Cist
30	Kornapara	–	–	Palakad	Dolmen, alignments, rock cut chamber and urn burial.
31	Vadakarapatti	–	–	Palakad	Cist
32	Elevanchery	–	–	Palakad	Dolmen

Sl. No.	Site Name	Co-ordinates	Taluk	District	Type of Megalith
33	Manjaloor	–	–	Palakad	Dolmen & Urn burial
34	Pallassana	10°37'N, 76°40'E	–	Palakad	Dolmen
35	Ongallur	10° 47'N, 76 °25'E	–	Palakad	Rock cut chamber & Topikallu
36	Kottathara	–	–	Palakad	Menhir
37	Ankatty	–	Manarkhad	Palakad	Menhir
38	Vellnezhy	–	–	Palakad	Rock cut chamber & burial
39	Kapur	–	–	Palakad	Umbrella stone
40	Angadipuram	–	Ottapalam	Palakad	Dolmen & Menhir
41	Elambalasseri	–	Ottapalam	Palakad	Rock cut chamber & Dolmen
42	Pallavoor	–	Chittur	Palakad	Cist & stone burials
43	Vilayanur	–	Ottapalam	Palakad	Dolmen, menhir , Cairn Circles
44	Vaddakamcherri	–	Althur	Palakad	Dolmen, menhir , Cairn Circles
45	Mundur	10°51'N, 76°33'E	Palakad	Palakad	Dolmen, menhir , Cairn Circles
46	Mathur	–	Althur	Palakad	Dolmen, menhir , Cairn Circles
47	Kongadu	–	Palakad	Palakad	Dolmen, menhir , Cairn Circles
48	Kavasseri	11° 38'N, 75° 49'E	Althur	Palakad	Dolmen, menhir , Cairn Circles
49	Eramayur	–	Althur	Palakad	Dolmen, menhir , Cairn Circles
50	Nagalasseri	–	Ottapalam	Palakad	Dolmen, menhir , Cairn Circles
51	Anakkara	–	Ottapalam	Palakad	Dolmen, menhir , Rock cut chamber
52	Kappur	10° 46'N, 76° 3'E	Ottapalam	Palakad	Dolmen & Menhir
53	Anangadipuram	–	Ottapalam	Palakad	Dolmen & Menhir
54	Elavancherry	10°35'N, 76 °38'E	Chittur	Palakad	Dolmen & Menhir
55	Elambalasseri/	–	Ottapalam	Palakad	Rock cut chamber
56	Vellinezhi	10°54'N, 76°20'E	Mannarkhad	Palakad	Rock cut chamber
57	Akettatara	–	Palakad	Palakad	Dolmen & Menhir
58	Chittilanjeri	–	Chittur	Palakad	Dolmens & menhir & Cairn Circles
59	Kannadi	–	Althur	Palakad	Dolmen & Menhir
60	Kannanurpattola	–	Althur	Palakad	Dolmen & Menhir
61	Kavelpad	–	Palakad	Palakad	Dolmen & Menhir

Sl. No.	Site Name	Co-ordinates	Taluk	District	Type of Megalith
62	Kilakkumbram	–	Palakad	Palakad	Dolmen & Menhir
63	kodundirapulli	–	Palakad	Palakad	Dolmen & Menhir
64	Kunnisseri	–	Althur	Palakad	Dolmen & Menhir
65	Kulhana	–	Palakad	Palakad	Dolmen & Menhir
66	Kuttanur	–	Althur	Palakad	Dolmen & Menhir
67	Mangalam	–	Ottapalam	Palakad	Dolmen & Menhir
68	Pallatteri	–	Palakad	Palakad	Dolmens, Cist & menhir
69	Todukusseri	–	Palakad	Palakad	Dolmen & Menhir
70	Vattakkad	–	Ottapalam	Palakad	Dolmen & Menhir
71	Kozhinjapara	–	Chittur	Palakad	Cist
72	Kumarampuhur	–	Mannarkad	Palakad	Rock cut chamber, Urn burial
73	Annakara	–	Ottapalam	Palakad	Rock cut chamber
74	Kappur	10° 46'N, 76° 3'E	Ottapalam	Palakad	Cairn Circles
75	Alur	10°37'N, 76°07'E	Ottapalam	Palakad	Dolmen & Menhir
76	Arakkurushi	–	Walawanad	Palakad	Dolmen
77	Vijayakurshi	–	Walawanad	Palakad	Dolmen
78	Perimpatteri	–	Walawanad	Palakad	Dolmen
79	Chalavara/Chalavery	–	Walawanad	Palakad	Dolmen
80	Chettalur/Chelalur	–	Walawanad	Palakad	Dolmen
81	Chunagad	–	Walawanad	Palakad	Dolmen & Cairn Circles
82	Elampulaseri	–	Walawanad	Palakad	Dolmen
83	Kattamparipuram	–	Walawanad	Palakad	Dolmen
84	Kullatikod	–	Walawanad	Palakad	Dolmen
85	kulukullur	10°53'N, 76°6'E	Walawanad	Palakad	Dolmen
86	Kumarampuhur	–	Walawanad	Palakad	Dolmen
87	Kulapattam	–	Walawanad	Palakad	Dolmen
88	Paiyanatum	–	Walawanad	Palakad	Dolmen
89	Kunattara	–	Walawanad	Palakad	Dolmen
90	Mulannur	–	Walawanad	Palakad	Dolmen
91	Mundakottukurisi	–	Walawanad	Palakad	Dolmen
92	Mundamukha	–	Walawanad	Palakad	Dolmen
93	Perur	–	Walawanad	Palakad	Dolmen
94	Pulasserri	–	Walawanad	Palakad	Dolmen
95	Srikrishnapuram	–	Walawanad	Palakad	Dolmen
96	Tachambra	–	Walawanad	Palakad	Dolmen
97	Tachhanatkara	–	Walawanad	Palakad	Dolmen
98	Tenkara	–	Walawanad	Palakad	Dolmen

Sl. No.	Site Name	Co-ordinates	Taluk	District	Type of Megalith
99	Tiruparakunnu	–	Walawanad	Palakad	Dolmen
100	Valppura	–	Walawanad	Palakad	Dolmen
101	Vallampur	–	Walawanad	Palakad	Dolmen & Menhir
102	Kotakurishi	–	Walawanad	Palakad	Dolmen
103	Vellinayi	–	Walawanad	Palakad	Dolmen
104	Agattaitara	–	Palakad	Palakad	Dolmen , Menhir, Cairn Circles
105	Chulanur	–	Palakad	Palakad	Dolmen
106	Erumayur	–	Palakad	Palakad	Dolmen & Menhir
107	Mattur	–	Palakad	Palakad	Dolmen & Menhir
108	Mannallur	–	Palakad	Palakad	Dolmen & Menhir
109	Kutallur	–	Palakad	Palakad	Dolmen & Menhir
110	Kuttanur	–	Palakad	Palakad	Dolmen , menhir & Cairn Circles
111	Kuralmannam	–	Palakad	Palakad	Dolmen
112	Kudalur	–	Palakad	Palakad	Dolmen
113	Kirakkambaram	–	Palakad	Palakad	Dolmen, Cairn Circles & Menhir
114	Mangalam	–	Palakad	Palakad	Dolmen & Menhir
115	Kodadanarapalli	–	Palakad	Palakad	Dolmen
116	Pananjatiri	–	Palakad	Palakad	Dolmen & Menhir
117	Mundur	10°51'N, 76°33'E	Palakad	Palakad	Dolmen, Menhir & Cairn Circles
118	Palassena	–	Palakad	Palakad	Dolmen & Menhir
119	Pallateri	–	Palakad	Palakad	Dolmen, Menhir, Cairn Circles
120	Pallavur	–	Palakad	Palakad	Dolmen
121	Pudusseri	–	Palakad	Palakad	Dolmen, Menhir, Cairn Circles
122	Tadukusseri	–	Palakad	Palakad	Dolmen & Menhir
123	Tarur	10°41'N, 76° 26'E	Palakad	Palakad	Dolmen & Menhir
124	Vadakkameseri	–	Palakad	Palakad	Dolmen & Menhir
125	Vilayanur	–	Palakad	Palakad	Dolmen & Menhir
126	Thekurusseri	10° 39' N, 76 34' E	Alathur	Palakad	Dolmenoid Cist
127	Eravattaparapathy	–	Alathur	Palakad	Dolmenoid Cist
128	Vadakarapatty	10 °44'N, 76 7'E	Alathur	Palakad	Dolmenoid Cist
129	Vamamkulam	10°47'N, 76°19'E	Chittur	Palakad	Rock cut chamber
130	Gurvayur	10°36'N, 76° 03'E	Chowghat	Palakad	Topikallu
131	Kannachiparutha	–	Alathur	Palakad	Dolmen
132	Nannagadi	–	Alathur	Palakad	Dolmen

Appendix 3

MEGALITHIC DISTRIBUTION OF MALAPPURAM DISTRICT

Sl. No.	Site Name	Co-ordinates	Taluk	District	Type of Megalith
1	Kalady	–	–	Malappuram	Rock cut chamber
2	Tharanur	–	–	Malappuram	Rock cut chamber
3	Alanode	–	–	Malappuram	Umbrella stone
4	Koduvayur	–	–	Malappuram	Umbrella stone
5	Melmuri	10°57'N, 76°03'E	–	Malappuram	Umbrella stone
6	Parnundam	–	–	Malappuram	Umbrella stone
7	Ozhur	10°57', 75°54'E	–	Malappuram	Umbrella stone
8	Ananthavoor	–	–	Malappuram	Menhir
9	Tirunavaya	10°51'N, 75°57'E	–	Malappuram	Menhir
10	Kuttippala	10°46'N, 76°3'E°	–	Malappuram	Rock cut chamber
11	Kottilangadi	–	–	Malappuram	Rock cut chamber
12	Alancode	10°45'N, 76°1'E	Ponani	Malappuram	Topikallu
13	Ponumundum	–	–	Malappuram	Topikallu
14	Tennala	–	–	Malappuram	Topikallu
15	Thannairkod	–	–	Malappuram	Topikallu
16	Thavanur	10°49'N, 76°1'E	–	Malappuram	Topikallu & Menhir
17	Thirunavaya	–	–	Malappuram	Menhir
18	Edakallu	–	–	Malappuram	Dolmen
19	Pattappiriyam	–	–	Malappuram	Dolmenoid cist
20	Elampulassery	–	–	Malappuram	Dolmen
21	Edutara	–	–	Malappuram	Dolmen & Menhir
22	Elattuamattamba	–	–	Malappuram	Dolmen
23	Ferok	11° 11' N, 75°50'E	–	Malappuram	Rock cut chamber
24	Pomala	–	Eranad	Malappuram	Rock cut chamber
25	Kittupalam Amsom	–	Ponani	Malappuram	Rock cut chamber
26	Kodugathu Desom	–	Perinthalmanna	Malappuram	Rock cut chamber
27	Manjeri	–	Eranad	Malappuram	Cairn Circles, Umbrella stone
28	Alancode	–	Ponani	Malappuram	Cairn Circles, Umbrella stone

Sl. No.	Site Name	Co-ordinates	Taluk	District	Type of Megalith
29	Eddapal	–	Ponani	Malappuram	Dolmen
30	Kittupalam Amsom	–	Ponani	Malappuram	Rock cut chamber
31	Kodugathu Desom	–	Perinthalmanna	Malappuram	Rock cut chamber
32	Manjeri	–	Eranad	Malappuram	Cairn Circles, Umbrella stone
33	Alamcode	–	Ponani	Malappuram	Cairn Circles, Umbrella stone
34	Eddapal	–	Ponani	Malappuram	Dolmen
35	Atavanadu	–	Tirur	Malappuram	Rock cut chamber
36	Irumpuli/Irumpuri	–	Tirur	Malappuram	Rock cut chamber, Dolmen
37	Kodakal	–	Tirur	Malappuram	Rock cut chamber
38	Malappuram	–	Eranad	Malappuram	Rock cut chamber
39	Nallur	–	Perinthalmanna	Malappuram	Rock cut chamber
40	Ozhur	–	Tirur	Malappuram	Rock cut chamber
41	Punatala	–	Tirur	Malappuram	Rock cut chamber
42	Karippur	–	Eranad	Malappuram	Rock cut chamber
43	Tanalur	–	Perinthalmanna	Malappuram	Rock cut chamber
44	Vengara	–	Tirur	Malappuram	Rock cut chamber
45	Alliparambu/ Alliparamba	–	Perinthalmanna	Malappuram	Dolmen & Menhir
46	Anamangadu/ Anamagad	–	Perinthalmanna	Malappuram	Dolmen & Menhir
47	Angadipuram	–	Perinthalmanna	Malappuram	Dolmen & Menhir
48	Cherayi	–	Tirur	Malappuram	Dolmen & Menhir
49	Kannamangalam	–	Tirur	Malappuram	Dolmen & Menhir
50	Karad	–	Eranad	Malappuram	Dolmen & Menhir , Topikallu
51	Karakot	–	Eranad	Malappuram	Dolmen & Menhir
52	Kerakunnu	–	Eranad	Malappuram	Dolmen & Menhir
53	Kolapalli	–	Tirur	Malappuram	Dolmen & Menhir
54	Panga	–	Eranad	Malappuram	Dolmen & Menhir
55	Pulamantol	–	Perinthalmanna	Malappuram	Dolmen & Menhir
56	Tachambra	–	Ponani	Malappuram	Dolmen & Menhir
57	Valambur	–	Perinthalmanna	Malappuram	Dolmen & Menhir
58	Vettatur	–	Perinthalmanna	Malappuram	Dolmen & Menhir
59	Wandur	–	Eranad	Malappuram	Dolmen & Menhir
60	Cherukavu	11°7'N, 75°5'E	Eranad	Malappuram	Cairn Circles