



Bulletin of the Department of Museums Chennai

Prof. T. Balakrishnan Nayar Memorial Endowment Lecture

On

Archaeological Excavations in Tamil Nadu Recent Trends

by

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Professor,

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Tamil University, Thanjavur**

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The Director,

**Department of Museums,
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Foreword

Thiru T. Balakrishnanan Nayar Memorial Endowment was instituted by Tmt. Maitreyi Ramadurai and Rs. 10,000/- was deposited for the institution of the Endowment as per G.O.Ms.No.19 Tamil Development and Culture (SI) Department dt.17.01.1985 to conduct the Endowment lecture in the subjects namely Archaeology, Anthropology, Numismatics or Museology. So far, 14 lectures were conducted.

Thiru T. Balakrishnanan Nayar popularly known as Prof. T.B. Nayar was a part time Numismatics curator in the Government Museum, Chennai. He was a former professor of history in the Presidency College, Chennai. Several distinguished scholars delivered the Prof. T. Balakrishnanan Nayar Memorial Endowment Lecture from 1985.

This lecture deals with "Archaeological excavations in Tamil Nadu- Recent Trends". It speaks about how the early antiquarians or enthusiasts paved the way for the systematic archaeological research in India. The author has mentioned about the excavations in Palaeolithic sites, Mesolithic sites, Neolithic Sites, Iron Age and Early Historic sites. Adhichchanallur is most important excavated site in the history of Archaeology of Tamil Country. Alagankulam, Karur, Arikamedu, Tirukkovilur, Kanchipuram, Kodumanal, Poruntal, Saluvankuppam near Mamallapuram, Vallam, Vasavasamudram near Mamallapuram are some of the important excavated sites of early historic period.

Dr. S.Rajavelu is presently working as Professor in the Department of Maritime History and Marine Archaeology and Faculty Dean of Manuscriptology, Tamil University Thanjavur. Before joining in the teaching line he has served in the Epigraphy branch of Archaeological Survey of India in the capacity of Epigraphist. He has written and edited 20 books and published 90 research articles in various reputed national and International journals. A book on Archaeological Excavations in Tamil Nadu in Tamil has received the Tamil Nadu State Award in the year 1990.

I hope it will be a useful lecture to understand our past history and culture through the various excavations conducted in Tamil Nadu. I appreciate the speaker for delivering an interesting and informative lecture.


Director 11.1.17

Archaeological excavations in Tamil Nadu- Recent Trends

Ever since the foundation of Asiatic society of Bengal at Calcutta in the year 1784 by William Jones (1746-94) a civil servant of the East India Company, the British officers had turned their attention to know the customs and manners of the Indian society with the help of innumerable source materials available in the form of inscriptions, religious texts, architectural wealth as well as buried remains for their smooth administration in the Colonial India. They ventured their attempt with the help of available literary evidences and started to dig many important ancient cities referred to in the Mahabharata, Ramayana and Buddhist literature in North India. Besides systematic survey were made by the British administrative officials, noticed innumerable archaeological sites and antiquities which were either on the surface or underneath the soil for a long time which have been unearthed by them in the form of excavations. The findings were often published in the Volumes of the Asiatic Researches. These early antiquarians or enthusiasts paved the way for the systematic archaeological research in India. Around 1830, Ventura, the Italian-French general of Maharaja Ranjit Sing of Punjab excavated a Stupa at Manikyala in Rawalpindi District of present Pakistan. This was the first excavation in the pre independent India (Hultsch.E. 1929).

The British Government in India established the Archaeological Survey of India and appointed Alexander Cunningham as the first Director General for Archaeology in the year 1861. Alexander Cunningham mainly concentrated on the heritage sites and monuments with the light of Buddhist literatures and other written sources. Due to the emergence of the Archaeological Survey of India, the independent antiquarian's researches were considerably reduced. Their contributions were not supported by the Government. In the beginning, the excavations were carried out by the Survey with an aim of recovering the artefacts, coins and

inscriptions and building remains. No systematic and scientific excavations were carried out by Archaeological Survey of India until 1941.

In the year 1900, Lord Curzon was appointed as the Viceroy of India. He had shown his keen interest to protect and preserve the Indian Heritage. Curzon appointed Sir John Marshall as the Director General of Archaeological Survey of India. Marshall concentrated on Excavations of many interesting sites including Harappa and Mohenjo-Daro. During his regime, The Ancient Monuments and Preservation Act and Conservation Code have been framed. Many archaeological sites have been protected in India during his regime as Director General.

South Indian Archaeology

In South India, the first scholar who studied the ruins of Mahabalipuram in 1772 was William Chambers. He was followed by many eminent and professional scholars like Goldingham, Colin Mackenzie, Thomas Daniel and Walter Elliot. These scholars mainly concentrated on the ancient architectural ruins, collected ancient coins and the written documents like inscriptions and Palm leaves. Though the first clearly recognized Palaeolithic implement most probably microlith, discovered by Mr. Le Mesurier an engineer of Railway Department in the year 1861 in the Vindhya region. The first early Palaeolithic tool was discovered by Robert Bruce Foote, a geologist of the Geological Survey of India, two years later i.e. on 30th May 1863 in a gravel pit at Pallavaram very near Chennai which is considered to be the most significant discovery in the history of Indian Pre history (Foote 1866).

Foote continued his survey in entire South India and earned the name as “Father of Pre History”. Foote and his team member of the Survey made intensive field survey in the Valley of Kortalaiyar River and found a large number of Palaeolithic tools *insitu* at

Attirampakkam and its vicinity. But he was never recognized by the Archaeological Survey of India, the prime most Government Agency in India at that time. Instead, the Government Museum at Egmore of the erstwhile Madras Presidency has recognized Foote's contribution and published his findings in the catalogue. Thanks to Government Museum, Egmore for its encouragement which paved the way for further researches in the field of Pre history of India by the later scholars.

As a result of Foote's contributions, further explorations and excavations have been carried out by many scholars. The remnants of artefacts from Palaeolithic period to late medieval period have been found in many places of Tamil Nadu and subsequently have been chosen for excavations. Nearly one hundred and sixty sites of various periods ranging from Palaeolithic to late medieval period have been excavated by various agencies including Archaeological survey of India and the State Department of Archaeology till date in Tamil Nadu. The Excavators concentrated mainly to Iron Age and Early historic sites. The reason behind this is very simple. For an archaeologist, it is easy to locate the megaliths (Iron Age assemblages) on the surface level itself and the Sangam literature give some clue to locate the early historic sites. Hence two third of excavated sites in Tamil Nadu were either associated with burial complexes (megaliths) or referred to in the Sangam literature. Besides, some accidental discoveries gave good result for further systematic and scientific diggings. For instance, Saluvankuppam, Alagankulam, Arikkamedu, Pallavamedu and Tiruvamattur etc. (IAR) are some of the habitation sites of early historic period in Tamil country chosen for digging from the accidental findings through explorations.

Palaeolithic sites

The Kortalaiyar region near Thiruvallur was widely concentrated for the study of Palaeolithic Age. Following R.B. Foot's steps, the Geologists like De Terra, T.T. Patterson.

L.A. Cammiade and Miles Burkitt's contributions to Pre history are noteworthy. (Cammiade and Burkitt, 1930). They studied the Geological terrace formations of the Palaeolithic sites on the Kortalaiyar Basin. Scientific excavations have also been carried out at Gudiyam (IAR.1962-63, p12; IAR.1963-64 p.19), Attirampakkam (IAR 1964-65, pp.21-22. IAR 1998-99, pp, 149-155; IAR1999-2000, pp150-51; Avanam-13, 2002.pp127-133), Vadamadurai (IAR 1966-67, pp20-21), Poondi and Neyveli (IAR, 1965-66 p.24). In this connection V.D. Krishnaswamy's contribution to Palaeolithic studies is a piece of guidelines for further research in this area. (Ancient India-Vol. 3).

Recently, The Sharma Centre for Heritage and Environment (SCHE) explored these Palaeolithic sites and carried out excavations at Attirampakkam and its surroundings. (IAR 1998-99, pp.149-155; IAR 1999-2000, pp.150-51). In these investigations the SCHE found foot prints of animal in association with Acheulian type of stone tools in a stratified level. The discovery of the fossil tooth of bovid hoof (water buffalo) is significant one (Pappu 2003). It is to be remembered here that R.B. Foote has already recovered a piece of human tibia with the paleoliths in his field explorations in the above place which gives the clue of human activity during Palaeolithic period in the Madras region. Some of the rock shelters in the Gudiyam of Allikulli range witnessed that the rock shelters in all probability used as a temporary shelters of Pre historic man. In the year 2001, fossil of human baby skull embedded with a ferricrete deposit at a place called Odai in Villupuram District of Tamil nadu by Rajendran of the Department of Kerala University is interesting one. He claims that it may belong to Middle to Upper Pleistocene period approximately dated to 1, 66, 000 years B.P. These findings suggest the human activities in Tamil Nadu from the time of Middle or Upper Pleistocene epoch. The discoverer of this baby skull at Odai claimed the skull belonged to archaic Homo sapiens (wise man) Category.

Mesolithic sites (Microliths)

Though Tamil Nadu witnessed many microlithic sites of Mesolithic period through explorations as surface collections. No systematic excavations have been carried out in the microlithic sites of Tamil nadu earlier. The Terri sites in the Coastal area of Tirunelveli and Ramanathapuram regions are famous for microliths. (Ancient India, 12, pp.4-20). After that systematic explorations revealed the wide spreading of microlithic culture in Tamil country. The Kortalaiyar region particularly, the Gudiyam cave area already witnessed some microliths through excavations which was conducted by Banerjee earlier. Recently, Tamil University has also recovered some microliths from Mayiladumparai Dharmapuri District Rajan,K and Athiyaman,N. 2011) and at the campus of Tamil University itself in a small scale excavations near Vallam-Pillayarpatti. (Selvakumar 2014). The expert team of the Sharma Centre for Heritage and Environment carried out some test pits in the Sawayarpuram area (IAR 2012-13, p). They found the microlithic artefacts on the surface of the lateritic gravels. It was formed in the early stage.

Neolithic Sites

The next period we come across in Tamil Nadu is Neolithic. After the discovery of a polished hand axe made of the raw material Basalt by Robert Bruce Foote at Arakonam in Vellore District, (R.B.Foote,1916) large number of Neolithic sites have been discovered in Tamil Nadu by many scholars. The Neolithic Culture mostly spread in the region of northern part of Tamil Nadu comprising of present Vellore, Thiruvallur, Kanchipuram, Chennai, Thiruvannamalai, Villupuram, Dharmapuri, Krishnagiri and Salem Districts. S.R. Rao and B.Narasimhaih of Archaeological Survey of India made some preliminary excavations in the regions of Vellore and Dharmapuri Districts.

The excavations at Paiyampalli (IAR 1964-65:22-23, IAR 1967-68:26-30) in the Shervaroyan hills in Vellore District show the development of mankind from nomadic to the settled life. The Neolithic people started to cultivate for their food and settled in the foot hills. They used rain water for irrigation purpose. They cultivated horse gram and green gram. Hence they selected foot of the hills for their settlement. One can see the development of mankind during this period. Man became food producer from food gathering stage. They domesticated animals and lived in the pits with postholes around the periphery for thatching the roof of grass. They used to make fine variety of polished stone tools for ploughing the lands, picking the roots of the plants and hunting wild animals. Neolithic Man knew the art of making handmade potteries. The Pottery was known as burnished grey or pale grey wares in the early Phase of Neolithic culture. In the late phase of Neolithic period one can see the development in the pottery making. The burnished grey ware was gradually replaced by Red ware variety in the late phase. Some of the terracotta figurines of female recovered from the Neolithic strata at Paiyampalli, and Mothur suggest that the people worshiped mother goddess or practiced ancestor's worship.

B.Narasimhaiah carried out some sondage excavations or section scrapings in Tailamalai, Togarappalli and Mullikkadu in Dharmapuri District. They belong to Neolithic period. He classified the potteries of Neolithic period into five major types on the basis of their variation and colour combinations. They are mostly red, tan, grey and brown and Black wares. (B.Narasimhaiah, 1980 pp.26-59) Tamil University and the Department of State Archaeology carried out some excavations in the Districts of Krishnagiri and Dharmapuri. In this connection, the excavations of Mayiladuymparai and Modur are note worthy. These excavations suggest that the northern part of Tamil Nadu witnessed the wide spread of Neolithic culture.

This is the period that man communicated his feelings and activities through paintings on the rock surface. They used mostly white colour pigments and red ochre for their drawings on the bare surface of the rocks. Mostly hunting scene of animals is figured in these paintings. Though rock paintings in India is datable to Mesolithic period witnessed at Bhimbetka in Madhya Pradesh (Jacobson 1980). We do not get come across the evidence of rock art of Mesolithic artefacts in Tamil Nadu. However some of the red ochre pigments on the rock shelters of Kilvalai and Settavarai area of Villupuram Districts may be considered to that period.

Chalcolithic phase

Scholars thought that Tamil Nadu did not come across solid remnants of Chalcolithic phase as witnessed elsewhere in Karnataka and Andhra region. This culture is an intermediate phase between Neolithic and Megalithic Cultures. According to the scholars, the association of ash mounds which is peculiar to the Chalcolithic phase is totally absent in Tamil nadu. However the excavations at T.Kalluppatti, near Madurai reveal the fact that 'the traces of Chalcolithic culture occurred in Tamil Nadu in sporadic manner. The Department of Ancient History and Archaeology of University of Madras carried out excavations at Appukkallu in the year 1980, which yielded some Neolithic Celts in the early phase. (IAR). The excavators felt that this site was predominantly assignable to Iron Age culture.

Dr. A. Sundara of Karnataka University, an eminent scholar in the field of pre history of South India visited this site Appukkallu along with the author, after hearing the news of the discovery of a dozen copper antenna swords which were recovered during the query work in the hill, adjacent to the excavated sites at Appukkallu. (Avanam-12; 14, 2001) He suggested that the Site Appukkallu is associated with Cholcolithic phase in Tamil Country. The soil on the foot of the hills where the excavations were taken place is similar to the ash

mounds of Karnataka region. Due to disturbance, it was destroyed he suggested. Dr.sundara further argues that this kind of Copper Antenna sword is generally associated with the Chalcolithic culture in India.* The same type of Antenna swords were also recovered from Anaimalai region of Coimbatore District in Tamil Nadu (Gandhi.M.2001).

Some of the excavations in the southern part of Tamil nadu gave the clue that the Mesolithic culture (microliths) was immediately succeeded by Iron Age or Early Historic culture rather than the Neolithic Culture as we have seen from the Northern part of Tamil Nadu. The sites like Mallapadi, Kallerimalai, Malaiyampattu in the Northern Tamil nadu and Therulundur (Kambar medu), Sembian Kandiur in the upper Kaveri region of Thanjavur region yielded sporadic evidence of Neoliths along with the Iron Age culture.

The excavations at Mangudi in Tirunelveli District (Shetty 2003) and Tiruttangal in Virudhu nagar District (T.S.Sridhar 2004) carried out by the Department of State Archaeology, Tamil nadu reveals the fact that the absent of Neoliths and the presence of microliths of Mesolithic Age. The Mesolithic culture was immediately succeeded by Early Historic or Iron Age Culture in the Southern part of Tamil nadu.

Iron Age and Early Historic sites

The Neolithic period in general, succeeded by the Iron Age culture which was misconceived nomenclature as Megalithic culture for a long time by the Archaeologists? Since this period is associated mainly with the burials it was called so. As already mentioned, large numbers of burial sites have been explored and excavated throughout Tamil nadu. More than 75% of excavated sites in Tamil nadu are associated with Iron Age- burial culture. The types of megaliths are narrated in the Sangam literature and the stages of development are also referred to in the poems of Sangam. Archaeologists generally divided the types of megaliths in to 1.Cairn circle. 2.Stone Circle. 3.Cist, 4.Dolmen. 5.Dolmenoid

Cist, 6.Urn, 7.Menhir and finally 8.Hero stones. The above typology was framed mostly based on the *in-situ* surface findings at the time of explorations by Archaeologists.

As mentioned earlier, the Sangam literature amply refers to the various types of burial customs by the Tamils in vividly manner. When compare to these literature the typology listed by the Archaeologists are varied. Literature quoted only four Types of burial customs prevalent in Tamil country. The Sangam literature such as *Tolkappiyam*, *Akananuru*, *Purananuru*, *Aingurunuru Malaipadukandam* and *Pattinappalai* provide valuable evidences. The above literature refers to the types of megaliths as *Pathukkai* or *Paraluyar pathukkai* which denote the assemblage of Cairn circles with Dolmenoid cist or cist. This type was variously referred to as *pathukkai*, *paralyuar pathukkai*, *vampappathukkai* etc. The Menhirs (Lofty size) of megalithic context could be identified with *Nedunkkal* of Tamil literature. *Nadukal* denotes Hero stones with or without inscriptions, and Urn burials *Tali* (including sarcophagi- *Imappelai*). The Cairns with stone circle is the surface indication and served as the prevention assemblages from natural calamity such as heavy rain. Because of these well planned heaps of stone pebbles the stone slab burials either on the surface or underneath kept in safe for a long time. But due to natural calamity or heavy rain or human activities these surface assemblages were cleared up. Thus the Dolmen or Dolmenoid cist without these assemblages could be taken up as a separate typology by the explorer

Truly speaking the Tamils practiced their burial customs on the basis of the Tinai, the fivefold of land divisions narrated in the literature. The land divisions are hilly tract (*Kurinji*), Wooded land (*Mullai*), the fertile lower courses of river region (*Marudham*), the littoral tract (*Neydal*), the dry waterless land (*Palai*). Each one had their own customs and manners and characteristic features. The burial customs also varied on the basis of availability of materials for the erection of memorial. Thus, the abundant availability of stones in the *Kurinchi*, *Mullai* and *Palai* regions naturally the stones were the medium of material for constructing the

burials. One can witness the stone circles with earthen packages of Dolmen or Dolmenoid cists in the above three zones. In the later stage, the Menhirs with or without inscriptions and Hero stones with sculptural representation were being used for the dead.

The earthen ware i.e. Urns or Sarcophagus made of Coarse Red ware were mostly used in the Plain fertile region (*Marudham*) and Coastal plain (*Neiydal*) regions by the people. We come across the Urns were made of fine variety of Black and Red ware in the *Marudham* tract. Adhichchanallur is the good example of this kind of Urns. The stone circles or stone slabs with cairns were used to prevent the burials where the dead remains were kept underneath from the rain. Thus the typology of cairn circle and cairn package are not the types of megaliths as classified by the early scholars.

The first scholar who studied the megaliths of India was J. Babington. He explored the megaliths of Malabar region which was locally known as *Pando coolies* and published an article in the year 1823. (J.Babington 1823, pp.324-330). Since then quite a number of scholars widely explored South India and large number of megalithic sites have been excavated in Tamil Nadu alone.

The Megalithic or Iron Age period in Tamil Nadu is generally dated to 1000 B.C.E. However the recent excavations at Adhichchanallur conducted by the Archaeological Survey of India in the year 2004 suggest that the date of this culture could be assignable to 1750 B.C.E on the basis of OSL. Adhichchanallur is most important excavated site in the history of Archaeology of Tamil Country. The site was first noticed by Jagor in the year 1876. Unfortunately he did not publish any of his findings of this place. He was quoted by his successor Lapique who made systematic survey in this place in the year 1903-04. Since Louis Lapique was a physical anthropologist and his main concern is to study the skulls of Adhichchanallur. He identified some of the skulls recovered from the excavation belong to a

race known as proto-Australoid. He recovered variety of potteries, bronze bangles, cups made of bronze, lamps and iron swords in the excavations. The next man who excavated this place extensively was Alexander Rea. He was then superintending Archaeologist in Madras Presidency. He investigated this area thoroughly and collected nearly 6000 artefacts in the excavations including gold ornaments, copper vessels, copper lamps and iron implements and variety of potteries.

K.A.N.Sastry, the well known historian after studying the findings of Rea at Adhichchanallur stated that the objects of Adhichchanallur were similar type of materials recovered from Levant which is connected with the king Solomon of Aegean of 12th century B.C.E. The artefacts of the Adhichchanallur indicate that the people lived sophisticatedly and knew the art of metallurgy. The abundance of gold ornaments and copper utensils and the type of potteries clearly suggest that this type of culture is unique in Tamil nadu.

In the years 2004 and 2005, the Chennai circle of Archaeological survey of India undertook excavations in two sessions. They mainly concentrated on the burials of Adhichchanallur. They found grave goods and nearly 200 Urns made of Black and Red ware and Coarse Red ware along with grave goods. They did not find the habitation area of Adhichchanallur. Hence the materials pertaining to habitation area have not been recovered from this burial site. Originally Alexander Rea excavated the habitation site on the other side of the bank of Tamaraparani near Kongarayakkurichchi which is 2 kms away from the burial site in the beginning of 20th century. It was possible for him to recover large number of domestic materials, types of potteries ornaments made of gold and utensils of copper making, semi precious stones lamps made of copper etc. But these materials were absent in the recent excavations.

Interestingly the burial complex where the recent excavations took place was once served as the open mines of that period. The author along with the Geologists of National Institute of Ocean Technology surveyed the mines area in the burial complexes at Adhichchanallur and Krishnapuram and noticed the raw materials of Copper and Gold in the open Mines. (The people of Adhichchanallur used to mine these open queries in a small scale and made vessels in Copper and ornaments in Gold.

The people who lived on the other bank of the river Tamaraparani were the original habitation site and they used to bury their dead on the other bank of River in the vicinity of open mines area. It was easy for them to place the urns underneath the pits of the mines. According to Satyamurthi, the excavator of 2004 and 2005 excavations, the burial ground was used by three generation of people successively without any gap. The position of Urns from bottom to top layers one above the above with some gap suggest that three generation of people continuously buried their deceased in the particular mines area.

There is a much argument amidst the scholars recording the engravings of Tamil-Brahmi script in this site exposed during recent excavations. As claimed by the excavator, the label inscription quoted the name Kariaravatana written inside the Urn is farfetched one. Generally the writings of Tamil- Brahmi script were engraved on the outer portion of the pottery only. Here the excavator claims that the engravings were found in the Urn. This is unusual practice. More over it is not possible to write the scripts inside the Urn by the engraver. If we accept then the writings should be shown upside down only. The author and many scholars examined the Urn *in situ* they could not find any traces of engraving inside the pottery. It was mistakenly taken as script of that period.

It is also known fact no single Damili inscribed pottery so far recorded by the early excavators of Adhichchanallur. Even the graffiti marks on the potteries of Adhichchanallur

are also scanty. On the basis of the analysis of materials, the OSL date of this site is arrived to 1700 B.C.E., the writing system was not known by the Tamils during this period. The recent excavations at Porunthal and Kodumanal reveal the fact that the Tamil Brahmi script was known by the Tamils around 600 or 700 B.C.E.

The people of Adhichchanallur lived in the Marudam tract probably ruled over by the king referred to as Vendan in Sangam literature. The findings of ornaments, crowns, belts made of gold and utensils made of copper clearly suggest that this place was once flourished as an urban centre with a port at Korkai, a place near the Eastern coast about 12 kms, away from Adhichchanallur.

Korkai was first noticed by Father Caldwell and he made some sporadic excavations. The Department of Archaeology, State Government excavated this site (Nagaswamy 1970) and found the urn burials and objects of Iron Age culture, brick structures along with NBP ware (Northern Black polished ware). The carbon date of the site was arrived from the charcoal specimen. It gives the date of this site is 870 B.C.E. noted by then Director of Archaeology R. Nagaswamy in his excavation report. However now he changed his view and pushed the date of Iron Age to late period.

Non use of Iron in the megalithic period

During the early phase of megalithic culture the usage of iron was not known in some area of Tamil Country. Excavations at Tandikkudi in Kodaikkanal region is carried out by Dr. Rajan and N. Athiyaman from Tamil University. They made systematic excavations on the top of the hills of Tandikkudi region. They laid trenches on the highest point of the hill and found the urn burial complex without iron material. (Rajan, K and Adhiyaman, N. 2001) The urns are placed in a pit and encircled by small boulders on the surface. They belong to Pre Iron Age. The Urn was made of Red ware with a narrow neck and conical base. When

compare to urns of Iron Age the above urns were very small in size. In the succeeding period the people of this area moved to further down and settled. These people used huge slabs and boulders for their burials and quite a number of Iron implements have been recovered from these burial complexes. It shows that this region is witnessed the early people were used the small pots made of Red ware as Urns without having the knowledge of Iron. When the successor of them moved towards down of the hills they knew the art of making iron implements. According to the excavators the date of pre iron age of the site is prior to 1000 BCE. Earlier the entire hilly region of Kodaikkanal explored by Father Anglade and his findings were preserved now in the museum of Senbaganur), on the way to Kodaikkanal. (Anglade, A and Newton, L.V., 1928)

The Early Historic period

There are quite a number of places which referred to in the Sangam literature have been chosen for excavations in Tamil Nadu. Uraiyur, the celebrated capital city of the Sangam Age Cholas was excavated by Madras University. Alagankulam, Karur, Arikamedu, Tirukkivilur, Kanchipuram, Tirukkivilur, Kodumanal, Poruntal, Saluvankuppam near Mamallapuram, Vallam, Vasavasamudram near Mamallapuram and Alakankulam are some of the important excavated sites of early historic period.

Kodumanal Excavations

Among the above, Kodumanal is important excavated sites in the history of Archaeological excavations in Tamil nadu. The Tamil University, Department of State Archaeology and the Central University of Pondicherry carried out excavations during the years 1985, 1986, 1989, 1990, 1997, 1998 by the Directions of Y.Subbarayalu, Natana Kasinathan and finally in 2012 by Rajan. (Rajan 2012) The excavations revealed the fact that this place was associated with the mercantile activities both foreign and inland. This place is

referred to in the Pattiruppattu as Kodumanam where semi precious stones were manufactured. The site is significant one that a large number of Damili or Tamil-Brahmi label inscriptions on the potteries within the 1325 sq.m excavated area. This comprises only 0.6 % of the total mound of the habitation at Kodumanal.

Nearly 650 potsherds yielded inscriptions mostly label in nature and record the name of the individuals. These Tamil- Brahmi potsherds show that the literacy efficiency of the ancient Tamils. In order to fix the chronology of the Tamil-Brahmi script, Dr. Rajan has recently conducted excavations and he noticed the earliest stratum yielded the graffiti marks in the lower level and on the next stage graffiti with Tamil Brahmi marks were occurred. Above that level the Tamil-Brahmi scripts potsherds were predominant pottery. In the upper level the pottery yielded Tamil Brahmi with Prakrit form is placed. (soft and aspirate sound words with a few northern Brahmi letters). It clearly suggests that the Tamil Brahmi script in all probability originated from the graffiti marks and due to the mercantile influence in the later stage the Prakrit letters were influenced in the Tamilised words. The Prakrit language arrived to Tamil country around 4th century B.C.E. through merchants from North India.

The excavator got radiometric dates for the script and concluded that the Prakritic influenced Tamil form came in to existence around 4th Century B.C.E. Itself. Since this place is associated with Trade it could be possible the traders were practiced the Damili- Prakrit form of writing. Below this level the excavator encountered with pure Damili scripts (Tamil Brahmi) scripts. It shows that the Damili Script was known by the people of Tamil nadu prior to Asokan Brahmi script. It is now possible that the Tamil Brahmi script was known by the people around 6th century B.C.E or 7th Century B.C.E.

Porunthal Excavations

To support the above view, for dating the Tamil Brahmi Script another scientific date has been received from the findings of Porunthal excavations carried out by Dr. K. Rajan. (2012) He sent the specimen for dating the Tamil Brahmi Script to Beta Analytical Centre in USA the science Laboratory after examined the specimen carefully and fix the radio carbon age as 2430+or- 30 BP i.e. to 520 B.C.E., prior to Asokan Brahmi. Nearly 25 sites of Early historic period yielded a large number of Tamil Brahmi scripts on the potteries suggest that the people of Tamil nadu knew the art of writing around 6th or 7th century B.C.E., and the basic letters of Tamil Brahmi script carried out by the merchants of North India, the Buddhist and Jaina monks to north India where they formed and introduced new letters to suit the Prakrit or Sanskrit language. The author and some scholars in the field of Epigraphy has fixed the date on the basis of orthography and Palaeography of Tamil Brahmi script to 6th or 7th century B.C.E. (Rajavelu, 2009).

The absent of Varga system, dots (pulli) in the early stage for consonants in the early stage of Tamil Brahmi script, the prevalence of the script among the people of ordinary life on the pottery as well as hero stones indicate that the Tamil Brahmi script is the mother of all Indian script from which the aspirate and soft signs have been introduced by the northerner to suit their prakrit language around 4th century B.C.E., without changing the basic letters borrowed from the Tamil people.

Murugan Temple of post Sangam period at Saluvankuppam

The excavations at Saluvankuppam near Mamallapuram is the another note worthy excavation in Tamil Country. The author discovered the mound near the coastal sandy area with the help of inscriptions and informed the Archaeological Survey of India. The excavations revealed the ancient Temple complex of Lord Murugan of post Sangam period.

(Rajavelu.S.,2005;2006) The excavation shows the two phases of Architectural complex. The early phase pertaining to post Sangam period they made temple in bricks. The size of the bricks is well akin to other early historic brick structures found at Uraiyur, Korkai, Kaveripumpattinam, Arikamedu, Nagarjunakonda, Amaravathi etc.

The brick temple of post Sangam period at Saluvankuppam was destroyed around 6th or 7th Century.C.E by sea catastrophe activities.(*kadalkol*). The Pallavas after seeing the destruction of the ruined temple around 8th century C.E reconstructed the temple with stone without changing the brick base of early phase. They used the original Brick structure as the base of the Stone temple and extended the complex in this stage. The other associated findings including the roof tiles of Sangam period and the terracotta female figurines of *Kuravai* dancer. *Kuravai kuttu* a dance is associated with Lord Murugan performed by the ladies. The findings of the brick temple suggest that the brick temple is the only one kind so far reported in Tamil Country belongs to Post Sangam period.

The two more excavations in Ancient Tamilagam are note worthy, to mention. Excavation at pattanam by the Kerala Council of Historical Research identified the site with the Sangam Age port city Musiri. They carried out the excavations nearly 8 seasons in a small village located on the bank of Periyaru (Periyar) and recovered large number of antiquities of Sangam Age. The Port city was once a flourishing harbour of the celebrated Chola Kings. The city was referred to in the Sangam literature and the travellers of early historic period. Many brick structures have been unearthed and interestingly a Canoe (single wood boat used for transporting goods from inland waters to deep sea where the ships were anchored) was unearthed at the depth of 5 meters. Besides large number of potteries both Roman, Mediterranean origin and inland have been unearthed. Square coins of Sangam Age Cheras and semi precious stones, Amphora, Terra sigillata of Roman origin were unearthed. The AMS and OSL dates were arrived to this celebrated port city. The earliest date is 1000

B.C.E., the maritime Trade with Red sea area through this port was further proved from the evidences of excavations in the Qusir al quotham, Berinike, Kor-orie in the Red sea ports and the Pyprous Document of Alexandria.

The excavation of Kiladi near Madurai is one of the land mark excavations in Tamil Country. The excavations so far carried out in Tamil Nadu are mostly in small scale level, with a limited fund provision. After the formation of the excavation branch of Southern region of Archaeological Survey of India at Bangalore, they carried out the large scale excavations in two seasons for the first time in Tamil Nadu which gave the good result. Sufficient fund was provided for this excavations and possibility for the excavator to dig as many trenches with this sufficient fund. They found large number of brick structures with hundreds of antiquities of early historic period. Besides games Men, semi precious stones, Tamil Brahmi potsherds have been recovered. Interestingly the brick structures were found along with the drainage pipes made of bricks as well as terracotta. At this stage it is not possible to arrive whether these pipes were for drainage or industrial purpose. Round shaped earthen kilns were also noticed within the structural complex in this site. In all probability it could be the factory site where for Textile.? Further excavations if continued in the same place at Kiladi would alone reveal the history and cultural sequence of the site.

Some Late medieval period sites have also been excavated in Tamil country. They are Darasuram, Gangaikonda Cholapuram, Palaiyarai, Mandripattinam, Kannanur, Marakkanam Gingee, Maligaimedu and Panchalankurichi etc. These excavations support the material culture of the people of late medieval period. And fill the gap of socio economic structure of the society of medieval and late medieval period.

The excavations carried out in Tamil country show the human activities started from Pleistocene period and continued till day. The findings from the excavations fill the gap of

social, economic, material culture and history of the Tamil people. The foreign trade narrated in the Sangam literature now proved through this kind of excavations.

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