200 Years of Babington's *Pandoo Coolies*: A Critique of the Megalithic Studies in Kerala

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Received: 09 July 2023; Revised: 04 October 2023; Accepted: 13 November 2023 Heritage: Journal of Multidisciplinary Studies in Archaeology 11.2 (2023-24): 301-323

Abstract: Megaliths are mainly the burial or commemorative monuments of Iron Age and Early Historic periods of peninsular India in general and Kerala, in particular. The studies on megaliths in India started with the antiquarian research of J Babington at Chattaparamba, near Farook, Calicut, in 1819. The report of this excavation was published in 1823 as "Description of the Pandoo Coolies in Malabar: with four drawings," in Transactions of the Literary Society of Bombay, (1823: 3:324-330). Babington did not term the monument as Megalith, instead he called it as Pandoo Coolies, probably the anglicised version of local traditions such as Pandu Kuzhi or Pandavar Kuzhi. The present paper attempts to critically analyse the nature of megalithic studies in Kerala for the last two centuries (1813-2023) and argues that it is still remaining in some sort of antiquarian stage.

Keywords: Babington, Pandoo Coolies, Megaliths, Iron Age, Early Historic, Excavation, Archaeology

Introduction

Generally, the megaliths are considered as the burial or commemorative monuments of the Iron Age and Early historic (c.1000 BCE – 500 CE) periods. They are the foremost material evidence for the study of the historic period also. The term Megalith is derived from two Greek words; *mega lithos* means big stone (Herbert 1847, 2010). Megaliths of Kerala are mainly made with laterite, granite and terracotta. The megaliths in laterite include Umbrella stone (*Kodakkal*), Capstone (*Toppikal*), Rock-cut sepulcher and stone circle. These typologies are unique in Kerala and mainly distributed in its northern districts include Thrissur, Palakkad, Malappuram, Kozhikode, Kannur and Kasaragod. The megaliths in granite include Cist, Dolmen, stone circle, menhir etc. found almost all parts of Kerala. The Urn and Sarcophagi were made in terracotta and had no lithic association. Since its size is huge, it is termed as megaliths. Many scholars hesitated to use the term megaliths to denote all typologies made in stone and terracotta; instead, they termed it as Iron Age burial monuments (Lashnik 1974, Gurukkal et.al 1999).

Since the Megaliths were not confined to Iron Age only and continued from Iron Age to early historic and historic periods, the term Megalith will be more apt to denote the

monument as well as its cultural period. There is no consensus regarding the chronology of the megaliths of Kerala. Based on the Porkkalam and Mangadu excavations, a period between 4th -3rd century BCE and 1st century CE is ascribed (Thapar 1952:6, Satyamurti 1992:9) to the Kerala Megaliths. Roughly, a period between 1000 BCE to 500 CE is generally considered as the period of Kerala Megaliths (Gurukkal et.al 1999:127-128). There were two types of megalithic burials; Primary or Extended burial in which the full body of the dead was buried along with his/her belongings and the another one was secondary or fractional burial in which the bone fragments collected from the cremated or exposed contexts were buried in the monument. The secondary type of megaliths was discovered so far from Kerala. The grave goods enclosed in the burials can be classified into four; (1) Potteries- Black and Red ware, Red Slipped Ware, Black Ware, Russet Coated Painted Ware etc.; (2) Metal objects and tools- Iron spear head, knife, dagger, arrow head, sword, chisel, trident, axe, ploughshare, sickle, hanging lamp, tripod etc.- Bronze utensils- Gold ornaments (only from Arippa and Naduvil sites); (3) Beads- semi-precious stone beads - carnelian, etched carnelian, quartz, amethyst, steatite, beryl etc. and glass beads from very few sites like Peringathur (Kannur district); (4) bone fragments.

J Babington, a British antiquarian, initiated the study of Megaliths in India in 1819 with the excavation of a cluster of burials which he called *Pandoo Coolies* in colonial Malabar and its report was published in 1823. Many explorations, excavations and salvage operations have been carried out in Kerala, after the publication of Babington, by various academicians and institutions during the colonial and post -colonial periods. The present paper tries to revisit such reports and the historical and archaeological studies on megaliths in Kerala for the last 200 years after the publication of Babington's Pandoo Coolies. The paper has three parts; the first part discusses the importance of Babington's Pandoo Coolies and how this report was used by the later scholars for their study; the second part discusses the megalithic excavations and salvage operations in Kerala from 1823 to the present; the last part critically evaluates how the academicians were utilised the information related to Megaliths for the study of Iron Age and Early historic society of Kerala.

Part- I- Babington's Pandoo Coolies

The site excavated by Babington was Chataperambah, literally meaning the field of dead, in November 1819 and read the report at the meeting of the Literary Society of Bombay on 26th December, 1820. It was published in the *Transactions of the Literary Society of Bombay in 1823*. Babington excavated cap stones and opened a few umbrella stones. He termed these monuments as Pandoo Koolies / Pandoo Coolies and did not use the term Megaliths. Later William Logan incorporated the drawings of Babington in his *Malabar Manual* and he used the term megalithic to designate these monuments.

According to the Report, the site was situated on a hill rising abruptly from the southern bank of the Beypoor river and about five miles to the eastward of the Beypoor village (Babington 1823: 326). The site was revisited by SB Darsana and almost

relocated the site at Chattanparambu (Lat 11 °12'.1"; Long 75° 50′ 24.2"), near Farook, Calicut district (Darsana 2007: 106). Babington's *Pandoo Coolies*, has at least three significances in historical and archaeological perspectives; typological observation; presentation of local myths on the monument; description and drawings of monuments and grave goods.

Typological Observations: Babington's report indicated that he was familiar with four typologies of *Pandoo coolies* (megaliths);

- o The large Chatty of baked clay or Earthen pot (Urn/ Nannangadi)
- o Topie Kull (Capstone)
- o Kodey Kulls (Umbrella Stone)
- o Cave? at Neelcaperamba (Rock cut chamber)

The report indicates that Babington was confused with the local names of Kodey Kulls (Kudakkal) and Topie Kull (Toppikkal). The drawings and report shows that he actually opened the Topie Kull (capstone), but he used Kodey Kull to designate the monument. He begins his report with the observation regarding the landscape of the monument. Accordingly, "Kodey Kulls, Topie Kulls or Pandoo Koolies are generally to be found on the top of eminences, or on the sloping side of such hills in Malabar as are not wooded. They seem to vary in their shape according to the nature of soil or rock on which they are constructed."

The Presentation of Local Myths: As an antiquarian, Babington incorporated all existing local myths and traditions of the natives associated with the monuments in his report. Accordingly, the natives believed that the monuments were the works of the Punduvars (Pandavar) and some others believed that the monument was the creation of gods or genii. He also quoted another myth as follows; "One very absurd origin is given to them, and is the most generally credited; it is, that at some very early period of the world men did not die, but after increasing in stature gradually for a number of years, they dwindled to pygmies of a few inches in length, when they ceased to eat and drink, , or to perform most of the other functions of animal life, and were in this state of doubtful existence inclosed in these tombs, with the implements and arms they had used when in the enjoyment of their faculties!" (1823: 326).

Why did Babington use the term Pandoo Coolies? Locally, the megalithic typologies are known variously as Pandavar Kuda, Pandavar Kuzhi, Pandavar Para and so on. According to such local traditions, the gigantic monuments made of laterite or granite were built by the Puranic heroes Pandavars. This myth survives in almost all parts of Kerala even now. As we know, Kerala was part of Tamizhakam in the early historic period and the language was predominantly Tamil. In Tamil, the term 'Mandavar' means the 'dead persons.' The megaliths were locally known as Madavar Kuzhi for a long period in South India. Then naturally a question may arise; how Mandavar kuzhi transformed into Pandavar Kuzhi? It can be logically answered. If one goes through the language of the inscriptions 9th to 12th century CE will recognize the continuity of

the Tamil influence in Kerala society. This period also witnessed the growth of Temple and temple art forms in Sanskrit traditions in Kerala through which the Puranic stories assimilated into the social memory of Kerala. The growth of Malayalam literature during the medieval times (after 13th century CE) led to the degeneration of Tamil influence. Thus the Malayali memory replaced the Mandavar with Pandavar. In other words, *Mandavar* must have erroneously been termed as *Pandavar* (Rajesh 2014a: 17). Babington must have used this local tradition to denote the burial monument and give title as *Padoo coolies of Malabar*.

Description and Drawings of Monuments and Grave Goods: The very first report of Babington on megaliths furnished a detailed description of tombs and grave goods with precise drawings. The grave goods unearthed from the tomb includes *trisulam* (trident), the large jar, iron tripod, iron lamp, the highly glazed *chattis* (pottery), various types of iron implements, stone beads in different colours and shapes, bone fragments etc. The drawings of the grave goods show that Babington's collections included Black ware, Black and Red Ware, Red Slipped Ware, Legged jar, ritual potteries, Russet Coated painted ware, pottery lids and stands, semi-precious stone beads; seem to be etched carnelian, quartz and beryl. The iron implements like spears, swords, knives and axes were referred to in the report (1823:330). Besides the drawings of the grave goods, the sketches of Kodey Kulls or umbrella stone (which he termed as Topie Kull) and the excavated Topie Kull or capstone (which he termed as Kodey Kull), were also attached in the report.

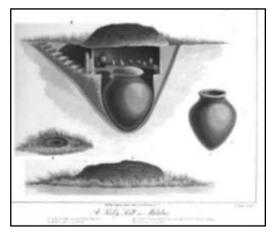




Figure 1: Babington's Drawings on Chataperambah site and Grave goods (Babington 1823: 330)

Wrong Citation of Babington's Site in Later Studies: A serious mistake occurred in the citation of Babington's site Chetapparambah in the existing dominant archaeological and historiographical studies in Kerala. In many works Babington's site is wrongly cited as Banglamottapparamba in Kannur district (Chedambath 1997, RK Mohanty & Selvakumar 2002: 313, Gurukkal & Raghava Varier 1999:104, Rajendran 2018: xii, Gurukkal & Raghava Varier 2018:43). The mistake was noticed by S Darsana who revisited Babington's site in 2006 (Darsana 2007: 100-108). In fact, the rock cult

cave at Banglamottapparamba was opened and salvaged by William Logan. The only available details on that site is a drawing of the top plan of that cave in *Malabar Manual*. The Babington site is rightly quoted in the appendix of the work *Iron Age in Kerala* (Satyamurthy 1992: 30). However, even after 200 years, the effort of Babington to study the Megaliths is not recognized or cited by the archaeologists and historians properly. Many of the academic works are not even reviewed the original archaeological report of Babington and the reports after Babington. The following part briefly surveys the nature of megalithic studies after Babington.

Part II- Megaliths After Babington

The history of Megalithic studies in Kerala has been started from the Colonial period. Robert Sewell has done the pioneer attempt to document the archaeological relics of Madras Presidency. His *List of the Antiquarian remains in the presidency of Madras* furnished a Taluk wise distribution list of archaeological remnants including megalithic monuments, inscriptions, archaic shrines etc. (Sewell, 1882: 238-261).

A Multi-Chambered Rock cut cell accidently found while the laterite cutting was progressing at the plot Challil Kurinyoli of Patinyatumuri Amsam Desam of colonial Calicut Taluk in 1879. William Logan, the Collector of colonial Malabar, immediately excavated the cave and salvaged the burial assemblages with the help of Mr. Kelappan, the Deputy Tahsildar of Taliparamba. It was a four-chambered rock cut cave with a long passage. "All four cells were found to be about half filled with earth and on clearing them out a large number of earthenware pots, a billhook of Iron, a number of small iron chisels, scraper of iron which had formed portions of other bill hooks or weapons, and a double iron hook for suspending a lamp or some other purpose were found buried in the earth". The cells did not contain bone fragments, at the same time Logan found two pots with white substance. Hence, he stated that dead bodies may have been burned and placed the ashes only in the cell. Then he confirmed that the cell was a sepulcher (Logan 1984 [1879]:309-311). William Logan opened another rock cut cave at Banglamottaparamba in Trichambaram Desam, Taliparamba Amsam of Chirakkal Taluk of Colonial period, which is now part of Kannur district (Logan 1887 [2010]:178-181). As mentioned earlier, this site is wrongly quoted as the site excavated by J Babington in many archaeological and historical works (Gurukkal and Raghva Varier 1999, 2018, Selvakumar and Mohanty 2002, P Rajendran). Logan has given the drawings of the ground plan, elevation and the unearthed burial assemblages in his work Malabar Manual.

F. Fawcett examined the structural features of the rock cut cave and the burial goods unearthed from Calicut. He gave special attention to trace the structural differences of the excavated caves (Fawcett 1890:371-373). Alexander Rea excavated a prehistoric cave at Perungalam in Tellicherry and furnished a catalogue of antiquities. This site yielded iron swords, hatchet, trident, tripod, Black and Red ware and Red wares (Rea 1910-11: 10-13). L A Cammiade examined the urn burials of Wayanad and furnished a list of burial sites (Cammiade 1930).

A. Aiyappan excavated two rock cut cave toms found in a plot locally known as Chenapparamba at Feroke. Prof. Jouveau- Dubreuil discovered the Feoke site in 1931. In the same year, based on his writings, Aiyappan excavated the site. Dubreuil opened the first cave and recovered the material remains. The second cave was opened by Aiyappan. It yielded various types of potteries included a large pyriform urn and lid of coarse half-baked clay, a sarcophagus (Aiyappan describe it as a large oblong bath-tub like vessel with twelve small solid legs) which contained a few etched tabular carnelian beads, four four-legged potteries, twelve red potteries with "marks" (graffiti) and fifteen small potteries. The Iron implements consisted of one tripod and one dagger. Aiyappan furnished a note on the importance of pottery marks by citing the viewpoint of Yazdani who studied potteries of Madras Museum and argued that the pottery marks had resemblances with the early Brahmi script. Aiyappan (2007: 12-29) said that the Feoke pottery marks have shown their distribution in the Malabar area too.

After Independence

B.K. Thapar excavated an Urn burial at Porkalam in Thrissur district in 1948. A cluster of burial types consists of a rock cut cave, dolmen, porthole cist within stone circles and urns. Excluding the urn, all other types were found disturbed. The remaining pyriform urn, which was placed in a pit, was excavated and unearthed typical megalithic remains include seven pots and their lids and stands, bone fragments, three iron implements and forty-eight etched carnelian beads. Thapar made a comparative analysis of the Porkalam artefacts with other south Indian burial assemblages. Based on the comparative analysis between the artefacts of Porkalam and various sites of Tamilnadu and Karnataka, he concluded that Porkalam belonged to a period ranging from third century BCE to first century CE. (Thapar 1952:3-16).

K.J. John has examined one of the thirteen rock-cut caves at Citrari in Cannanore district, which was opened by the local people, and salvaged potteries consisting of black ware and red ware having the shape of vase and bowls. Few terracotta lids were also found. About thirteen potteries were collected and two of them contained charred bone fragments. Another important find from the site was a Neolithic pinkish ware. John has discovered similar pottery from a rock cut cave at Karaparamba village of Pariyaram in Tellicherry taluk of Cannanore district. He said, A Sundara has agreed that these finds were similar to the pottery shreds discovered at T.Narsipur. Another interesting find from Citrari was a trapezium-like pit found to the south of the rock cut cave. John assumed that "probably it was used by the builders of the cave tombs for exposing the dead body in order to collect the relics to be placed in the ritualistic and to be preserved in the cave tomb". An unfinished cave to the north of this cave also pointed to the method of cave carving adopted by the megalithic builders. Finally, John stated that the rock-cut cave tomb builders were essentially ancestor worshippers (John, 1974:383-86).

A cluster of cist burials surrounded by stone circles made of granite blocks excavated at Machad and Pazhayannur in Trichur district by R.N. Mehta and K.M. George. The

excavated monuments yielded many antiquities like pottery, beads, metal objects, bone fragments etc. The pottery includes Black and Red Ware, red ware and black ware. About forty-six pieces were discovered that include bowls, dishes, lids, pots in small and big size and pot stands. Graffiti marks occurred on the potteries. The site yielded eleven iron objects consisting of daggers, chisels, hooks and nails and they unrevealed the method of iron metallurgy. About hundred and seventy-five beads of semi-precious stones include agate, carnelian, cherty-jasper, crystal and orthoclase feldspar. They were made in various shapes like barrel, cylindrical, faceted, spherical, oblate and rectangular bicones. There were hundred and twenty-six etched carnelian beads and seven metal pendants. Interestingly, a grinding stone, which shed light on the bead manufacture, was also found. The bones from the burials include the charred human bones fragments like skull, radius and ulna. A period ranging from circa second century BC to second century AD is ascribed to the excavated burials (Mehta & K M George 1978).

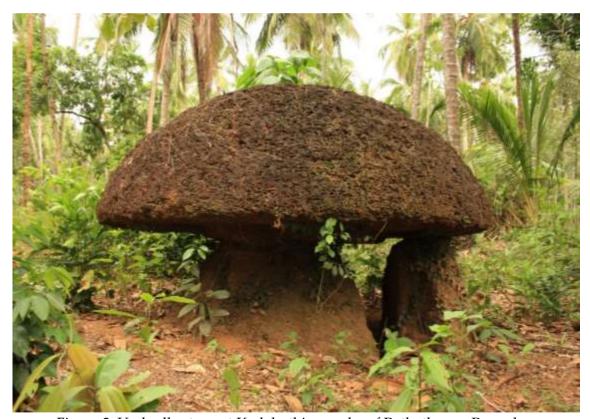


Figure 2: Umbrella stone at Kodakuthiparamba of Pythoth near Perambra

K.J. John excavated one umbrella stone (*Kodakkal*) at Kodakuthiparamba of Pythoth near Perambra in 1979 and unearthed burial goods (Fig.2). It includes a pyriform jar of dull red ware with a lid and small red ware, a highly polished bronze-vase, and iron objects like tripod, lamp and double-edged dagger. Both Babington and Logan, who wrongly identified *Topikkal* as *Kodakkal*, believed that this type was a monument not a sepulcher. However, the investigation of John confirmed the sepulcher nature of the *Kodakkal* (John 1982:148-153).

M.R. Raghava Varier and Y Subbarayalu examined a Cist burial at Kuppakkolli in Wayanad in 1987 and unearthed black bowl, legged jar, red dishes, wares etc. The most important evidence from this site was an iron ploughshare (Varier 2021: 49-51).

The Madras Circle of Archaeological Survey of India excavated a cluster of megaliths including capstones, multiple hood stones, umbrella stones etc. at Cheramanparamba in Thrissur district in 1990, which is now under the protection of their Thrissur Circle. The hood stone yielded a pyriform burial urn covered by laterite lid that contained Black and Red Ware bowls, Red Ware vase, Russet Coated white painted ware bowl, Iron object and bone fragments. An Umbrella stone (wrongly identified it as *Toppikkal*) was opened and it contained no burial goods. A granite capstone with an urn interred in a pit was excavated and unearthed eleven red potteries and bones. Three pit burials excavated in a stone circle. The first pit had a burial urn with a granite stone lid. The Urn contained iron objects like four arrowheads, two lamps with hooks, two tripods, a hook, knife, sickle and rod and a copper bowl. Pit two was similar to pit one. The urn unearthed four rods, three ring stands, two arrowheads, two lamps with hooks and a sickle, all made of Iron and a copper bowl. The pit three also had a big urn yielded two tripods, a knife, a lamp with handle, a carved rode and a copper bowl. All these goods deposited over a sand bed at the bottom of the urn. As the Kodakkal and multiple hood stone circles did not yield any burial assemblage, it is argued that they were the symbolic burials.

K.J. John excavated a cluster of stone circles with rock cut caves at Nendravattom of Naduvil 1990, near Taliparamba in Kannur district. It yielded a fragile bronze vase, unidentified bronze equipment, iron sword, iron dagger, tridents, knives, chisels, iron saucer lamps, iron tripod, a crystal bead, a quartz bead, earthen vases, ring stands and pot rests (John 1990. Poyil 2006: 94-95).

About twelve burial urns were excavated at Mangadu in Kollam district in 1992 (Satyamurthy 1992). According to Satyamurthy, Mangadu may be the corrupt form of Tamil *Ema-Kadu*, *ema* meaning funeral and *kadu* denoting *sudukadu* (plot for cremation) or *Idukadu* (plot for exposure) (Ibid: 11). These entire urns were handmade dull red ware without a lid. They yielded pottery, iron objects, beads and bones. The pottery included three categories; the huge urns, the medium sized jars and the associated burial pots. The urns and jars were handmade red pottery and the associated potteries are wheel made Black and Red ware and Red wares. The Iron implements included wedges, long cutting knives, sickles, tanged knives and blades. The absence of war weapons is conspicuous to this site. The beads included carnelian with and without etched marks. Based on Carbon 14 tests it is suggested that the Mangadu urns belonged to a period ranging from 1000 BC to 800 BC. This excavation proved that the Iron Age of Kerala commenced from 1000 BC.

Two cist burials excavated at Arippa in Kollam district by P Rajendran in 1993and unearthed ceramic types like red ware, Black and red ware, black slipped ware, red slipped ware, grey ware etc. Iron implements included dagger, sickles, hoes, rods and

knifes and gold ornaments consisted of three slotted ear rings and a copper bangle. The bone fragments of adult and child human beings and animals along with food grains were also reported from here (Rajendran 1995:684, 2021: 62-64).

The excavation of Iron Age burials at Kurumassery (1997) yielded about hundred and thirty-six beads of various shades and dimensions made of carnelian, jasper, glassware, bone, horn and quartz crystal. The remains of rice husks from this site had more significance (Chedampath 1997).

Thrissur Circle of Archaeological Survey of India has conducted an extensive rock cut cave sepulcher excavation at Ummichipoyil in Kasargod district in 2001 (Ramamurti 2002). About seven sepulchers were excavated and unearthed burial assemblages like various types of red wares, red-legged potteries, black wares, black and red wares and iron objects. Among the pottery the channel-spouted vessel, typical of the Neolithic in dull red ware, were found. This may be valuable information on the continuity of Neolithic tradition in the period of Megalithic builders (Jaysree Nair 2007:118-136, 2008:13-29).

The State Archaeology Department of Kerala excavated a rock cut cave sepulcher at Kuruvattur in Calicut district in 2006. It yielded megalithic burial pots and iron implements. The iron implement included sword, chisel, wedges, tripod, tanged knife, ploughshare and tweezers (Krishnaraj 2015: 14-15).

The State Archaeology Department of Kerala excavated a rock cut cave sepulcher found at Cheliya near Koyilandy in Calicut district in 2008. This site unearthed burial potteries, a small sarcophagus of terracotta and iron objects (Krishnaraj 2015: 14-15).

Three cist burials were excavated at Kadanad by the Thrissur circle of Archaeological Survey of India in 2008. They were located at three localities namely Mattathil Para, Inchukavu and Kurumannu (Nambirajan and C Kumaran 2011:123-128). The burial goods unearthed from the cist burial included black and red ware, red ware and black ware. The types include bowls, shallow dishes, vases, carinated pots, ring stands, miniature pots and lids. Kadanadu yielded a rich deposit of iron implements. The cist 1 unearthed one dagger, chisels, hoes, leaf shaped knife, sword and an object with a hilted handle on one end and carved projection on the other end, a long spear. The cist 2 yielded twelve iron implements like chisel, battle-axe, dagger knife, ladle, a long spear type implement and two implements having edges on four sides. The semi-precious beads from this site consisted of quartz, chert, jasper and etched carnelian. A gold leaf was also discovered from this site. Based on the study of burial typology and burial assemblages a period between 300 BC and 200 BC is ascribed to the Kadanad cists (Nambirajan and C Kumaran: 123-128).

The School of Social Science, Mahatma Gandhi University Kottayam carried out two season excavations at Anakkara in Palakkad district in 2008 and 2009 and unearthed typical burial assemblages from a cluster of Iron Age burials. The excavated

monuments included a stone circle with three urns, another one with three rock cut cave chambers, an umbrella stone containing burial assemblages and two urns. The burial assemblages included Black and Red Ware, Red Slipped Ware, Russet Coated Painted Ware, Black Burnished ware, black ware, Iron objects like tripods, trident, arrowheads, dagger, sword, lamps, an unidentified corroded copper object, etched carnelian and steatite beads with steatite pendants and bone fragments. The charred bone and the exposed bone fragments were discovered from the urns (2008). All the burial goods were placed above the yellowish sand bed filled in the bottom part of the pyriform urns (2008). A number of post holes in a circle in the laterite plateau located very close to the stone circle (2009) were another important feature of this site. The purpose of the post holes is not clear, as it is located very close to stone circles it may not be used as settlement hut. Most probably, it must have been used as a plot for a post burial ritual. The 2008 excavation provided supplementary evidence about the pre-iron age settlement of the region. A trial trench laid out close to the excavated umbrella stone and stone circle yielded about 24 Mesolithic implements made of quartz below the Iron Age layer. Interestingly a layer of Chalcolithic phase between the Iron Age and Stone Age layers was absent in this trench. This evidence sheds light on the distribution of Stone Age settlements in the region and also emphasises on the need of such archaeological investigations in Kerala (Shajan et.al 2013-2014: 25-51).

The State Archaeology Department of Kerala retrieved a small-legged sarcophagus from a rock cut cave sepulcher found accidently at Kodakal near Atholi in Calicut district in 2014. A pillared rock cut sepulcher excavated at Kakkodi in Calicut district and yielded ninety-six burial potteries, hundred and twenty-five semi-precious beads of carnelian, agate and crystal and pendant and also the iron implements (Krishnaraj 2015: 16-17).

The State Archaeology Department of Kerala excavated, following an accidental discovery of the local people, a rock cut chamber having double chamber with single entrance at Marakkara in Malappuram district in 2015. The cave unearthed about twelve potteries including bowls, ring stand, pot, vessels and lid in both black and red colours. About twenty-four iron implements found from the sepulcher consisted of dagger, arrowheads, knife, sickle, chisels, rods, blades etc. The cave also yielded about thirteen etched carnelian stone beads and one quartz stone bead.

A pillared rock cut cave sepulcher found at Patyam near Koothuparamba in Kannur district. It yielded black and red ware and red ware potteries, broken pieces of iron knife, sickle, dagger etc. and few bone fragments. The local people also opened this cave and therefore most of the evidence was lost. The Archaeology department made a salvage operation in both sites and recovered the remaining artefacts (Krishnaraj 2015: 28-78).

A cist burial excavated at Niramakulam Pathanamthitta district and unearthed the potteries included Black and Red Ware, Red Ware, Grey Ware, Black Slipped Ware, Black Polished Ware, a chocolate coloured ware, 7 Iron implements included sickles

and knives and 15 carnelian beads (Ajitkumar et.al 2014: 166-171). The department of History, Government Arts and Science College Meenchanda, Calicut conducted an archaeology workshop and trial excavation of a cluster of burial urns at Kinalur in Calicut district in 2016 and unearthed typical megalithic burial goods. The remains of a Mesolithic industry below the Iron Age layer are the most striking discovery from the site (Selvakumar 2020: 171-180).

Table 1: Megalithic excavations and Salvage operations after 1954-2022

Sl. No.	Site Name	Excavated By	Typology	Grave Goods/ Remarks
1	Porkkalam	B K Thapar 1948	A rock cut cave, dolmen, port hole cist within a stone circles and urns	7 pots and their lids and stands, bone fragments, three iron implements and 48 etched carnelian beads
2	Citrari, Kannur	K.J. John 1971	A cluster of rock-cut cave tombs. An unfinished cave	Pottery- BRW, Red Ware
3	Machad & Pazhayannurtrichur	R.N. Mehta & K.M. George 1974	Cist Burials	Pottery (BRW etc.), beads (agate, carnelian, cherty- jasper, etc.), metal objects, bone fragments
4	Kodakuthiparamba Pythoth Perambra	KJ John 1979	Umbrella Stone	A pyriform jar of dull red ware with a lid, small red ware, a highly polished bronze-vase, and iron tripod, lamp and double-edged dagger
5	Kuppakkolli Waynad	M.R. Raghava Varier & Y Subbarayalu, 1990	Cist burial at	Black bowl, legged jar, red dishes, wares, Iron Plough share
6	Cheramanangad Trissur	The Madras Circle of Archaeological Survey of	A cluster of megaliths include capstones,	Black and Red Ware bowls, Red Ware vase, Russet Coated white painted ware

		India 1990	multiple hood stones, umbrella stones etc.	bowl, Iron object and bone fragments, copper objects etc.
7	Nendravattom Naduvil, Taliparamba Kannur	K.J. John 1990	A cluster of stone circle with rock cut caves at	Bronze vase, iron sword, dagger, tridents, knives, chisels, iron saucer lamps, iron tripod, a crystal bead, a quartz bead, earthen vases, ring stands and pot rests
8	Mangadu Kollam	T Satyamurthy 1992	Twelve burial Urns	Urn were handmade dull red ware without lid. Pottery, iron objects, beads and bones. 1000 BC to 800 BC
9	Arippa, Kollam	P Rajendran 1993	Two Cist burials	Red ware, BRW, Black slipped Ware, Red slipped ware, Grey ware etc, Iron dagger, sickles, hoes, rods and knifes and gold ornaments consisted of three slotted ear rings and a copper bangle.
10	Ummichipoyil Kasaragod	ASI Trissur Circle 2002	Rock cut cave sepulchers	Red wares, Red- Legged potteries, black wares, BRW and iron objects. The channel- spouted vessel typical of the Neolithic in dull red ware
11	Kuruvattur Kozhikode	The Kerala State Archaeology Department	Rock cut cave sepulcher	Potteries, Iron sword, chisel, wedges, tripod, tanged knife,

		2006		ploughshare and tweezers
12	Cheliya, koyilandy, calicut.	The Kerala State Archaeology Department 2008	Rock cut cave sepulcher	Potteries, A small sarcophagus of terracotta and iron objects
13	Kadanadu Mattathilpara, Inchukavu and Kurumannu, Kottayam	ASI Trissur Circle Nambirajan &C Kumaran	Three cist burials 300 BC and 200 BC	BRW, Red ware, Black ware. A rich deposit of iron implements- dagger, chisels, hoes, leaf shaped knife, sword, semi- precious beads- quartz, chert, jasper and etched carnelian. A gold leaf
14	Anakkara Palakkad	Rajan Gurukkal, K P Shajan, V Selvakumar 2008-09	Umbrella Stone, Urns Stone Circles Mesolithic Tools	BRW, Red Ware, Black Ware, RCPW, Iron Tripod, Lamps, tridents, sword, dagger, arrow heads, bone fragments
15	Oliyani Kottayam	P Rajendran 2005	Two Cist Burials	Red Ware, BRW, Pottery with Stand, lid, Iron sickle, Dagger, Sword, Spearhead, iron spoon, charcoal pieces
16	Kudakkal Atholi Kozhikode	The Kerala State Archaeology Department 2014	Rock Cut Cave	Sarcophagus, legged Jars
17	Kakkodi Kozhikode	The Kerala State Archaeology Department 2014	Rock Cut Cave with round Pillar	96 potteries, 125 beads of Carnelian, Agate, Crystal, iron implements, Iron hook fixed on the

				roof of cave
18	Marakkara Malappuram	The Kerala State Archaeology Department 2014	Rock cut with two chambers inside	Pottery, pottery stand, Carnelian beads, iron arrow head, Iron Dagger, Chisel, Sickle, rode, hook, nails etc.
19	Patyam, near Thalasseri Kannur	The Kerala State Archaeology Department 2014	Rock Cut Chamber with Pillar	Pottery, three hearth stones, chisel, knife, sickle, hooks, bone fragments
20	Niramakulam Pathanamthitta	Ajit Kumar & Ambily CS 2014	Cist burial	BRW, Red Ware, Grey Ware, Black Slipped Ware, Black Polished Ware, a chocolate coloured ware, 7 Iron implements included sickles and knives, 15 carnelian beads
21	Murugappara, Marayur Idukki	Nihildas 2014: 132-140	Dolmen	Red Ware, Black/Gray Ware, Black and Red Ware, Red Ware, Black/Gray Ware etc.
22	Kinalur Calicut	The Kerala State Archaeology Department 2015	Urn Burials Microliths	BRW, Etched Carnelian Beads,
23	Thriprangode Kodakkal Malappuram	The Kerala State Archaeology Department 2020	Rock Cut Cave	Pottery, Iron implements, Iron Tripod, Swords,
24	Kuttikkol Kasaragod	Archaeology Dept. University of Kerala 2020	Rock Cut Chamber	Pottery shreds of BRW, Legged Jar
25	Enadimangalam	Archaeology	Double	Pottery, Iron objects
				· · · · · · · · · · · · · · · · · · ·

	Pathanamthitta	Dept.	Chambered Cist	
		University of		
		Kerala 2021		
26	Kudallur, near	The Kerala	Rock cut with	RCP, Red Ware,
	Anakkara	State	three chambers	Pottery Lid, Iron
	Palakkad	Archaeology		implements, Bone
		Department		fragments
		2022		C

The table 1 shows that the number of excavations and salvage operations so far conducted in Kerala discovered only a minimum number of megalithic burials. Many of these sites were accidentally discovered by the local people. The number of excavation with the involvement of Archaeological Survey of India is again too minimum. Among the excavated or salvaged burial types, the rock cut chamber, mainly distributed in the northern districts of Kerala, are the largest number. Out of 26 sites, 13 sites are Rock cut chambers, which shows that much excavated or salvaged sites were reported from the northern parts of Kerala.

It does not mean that the distribution of megaliths in the central and southern part of Kerala are scanty. Recent researches carried out Anjunad valley of Idukki district (Nihildas 2014), Pamba river basins of Pathanamthitta district (Ambily 2017), Periyar basins of central Kerala (Krishnan 2017), upper Bharathapuzha basin (Stephen 2017), lower Bharathapuzha basin (Sujatha 2018), Megaliths of Thrissur district (2022) etc. have shown the wide distribution of megaliths and the need of more systematic field surveys and documentations in central and southern part of Kerala. Recently many sites have been systematically explored and reported by the students of archaeology of the department of Archaeology University of Kerala. Almost all these sites unearthed the evidences of burial practices of the megalithic builders. However, the archaeologists could not find any solid proof about the habitation-cum burial sites of megalithic period from Kerala. At the same time recent excavations of Pattanam, an early historic urban settlement with internal and external overseas trade contact, yielded a few black and red ware shreds from the Iron Age and early historic transition layer. These evidences have illuminated the possible spread of Iron Age settlements in the west coast of Kerala (Shajan et.al 2003: 30-37, Selvakumar et.al 2003:38-45, Cherian et.al, 2007-2015). It is hinted at the need of an extensive archaeological exploration and excavation for locating the Iron Age and early historic habitation in the surrounding locale of the Megaliths.

Part III

This part discusses the nature of interpretative studies based on megalithic evidence. Probably, William Logan is the pioneer scholar who tried to observe the connection of the megaliths with the religion and death rituals of colonial Malabar. He has identified megalith as part of the ancestral worship and believes in life after death of Hindus in Malabar. According to him, "Persons who caused sorrow and trouble in life were after

death supposed to be the cause of further unhappiness, and as such they had to be propitiated with gifts which they would have appreciated when alive. They had to be supplied with the weapons, the cooking pots, the oil receptacles, the lamps, the ornaments, the water jars and the implements which they used during life" (Logan 1887:178-79). He tried to link the megalithic traditions to the death customs of Nayar, Tiyas and the artisan classes of Malabar. Logan has chronologically classified the burials of Malabar into four categories: (1) Megalithic remains (2). Excavated Caves (3) Caves with massive urns (*Kudakkallu*) and Massive Sepulcher urns without caves and (4) Modern sepulcher urns of small size. Thus, he attempted to trace a historical link between the megalithic remains and the death rituals of the previously mentioned caste groups of Hindus of the modern period (Logan 1887:178-181).

L A Krishna Iyer, the earliest social anthropologist of Kerala who studied the life of the megaliths builders based on megalithic evidence and the ethnographic survey among the living tribes of Kerala like Malapantaram, Malayarayan, Kadar, Paniyar, Muthuvan, Urali, Malapulayar, Kurumbar, Cherumar, Kurichiyar etc. He observed the survival of burial rituals among the living tribes and tried to correlate it with the megalithic tradition. According to him, "Megalithism prevails to some extent among certain of these tribes. The Malayarayan tract is strewn with a large number of dolmens, which formed the graves of their chieftains. They now erect miniature dolmens when a man dies an unnatural death. The Malapulayas plant a stone at the head, feet, and breast of the deceased. The Nayadis make stone representations of the departed, and they are planted in a circle."

K Damodaran made a serious attempt to corroborate the megaliths with the burial practices of early Tamizhakam based on the references in the *Sangam* literatures. He treated the megaliths as the archaeological evidence of Iron Age and early historic society (Damodaran 1967). A Sreedara Menon has given a fine opening to various types of Megaliths of Kerala and explained the sepulcher nature of Cists, Dolmen and Rock cut caves exhaustively. He said, "The megalithic builders who chose rock ground for burials also dug irrigation tanks in the alluvial plains, indicating that they were not only settled people but also practical agriculturists". By quoting H D Sankalia's view, Menon stated that the megaliths represented "a fairly well-established and prosperous social organisation" (Menon, 2003 [1967]: 50-56).

B.K. Gururaja Rao has given a detailed survey of the megaliths of Kerala (1971: 42-62). K.J. John has studied the Megaliths and described different typologies of the burial of Kerala 1991:9-19). T. Satyamurthy argued, "the occurrence of large numbers of agricultural implements and the location of the monuments overlooking arable land show that the builders of these megaliths were primarily agriculturalists" (1992: 21). Rajan Chedampath's doctoral thesis on the megaliths of Periyar and Ponnani river basin of Kerala extended the socio-economic milieu of the megaliths and early historic period. The study argued that the megalithic early history society was based on agricultural production in the wet, garden and hillock region (1997).

As a collective scholastic effort Rajan Gurukkal and Raghava Varier edited a work entitled Cultural History of Kerala and gave an updated information regarding the Megaliths of Kerala (1999:101-156). This work characterised the Megalithic culture as the 'Iron Age Culture' and showed the overlapping of the megaliths in the Iron Age and Early historic period. They have pointed out that megalithic tradition reached Kerala probably around the mid-first millennium B.C and continued until mid-first millennium A.D. The chapter on Iron Age described all megalithic typology and its distribution in Kerala. Based on the megalithic distribution of Kerala, where the Iron Age habitation remains are absent, they ascribed a 'dispersed settlement pattern' to the Iron Age society. Accordingly, the Iron Age society involved in mixed means of subsistence includes hunting and gathering, animal husbandry, agriculture and craft production. The Iron Age society was familiar with metal, craft and ceramic technologies. The burial monuments have shown that they had architectural knowledge. "The use of pillar and door-jambs in the rock cut caves shows the rock-cut architecture to be the prototype of what has been evolved in wooden architecture" (141). The inter-regional and intra-regional exchanges, the nature of social organisation, the political power and the belief system and ideology of the Iron Age period has been examined in this work.

Jenee Peter has examined the distribution of Iron Age burials of central Kerala (2002). Peter observed the diversity in the typology of monuments in Central Kerala as an indication of cultural diversity. 'The presence of agrarian tools, the distribution of sites in the Midlands and the Lowlands, which are ideal for rice cultivation and the presence of paddy husk from one site, indicates that agriculture was a major form of subsistence during this period'.

Ajit Kumar studied the ethno- archaeology of the Cholanaikans of Nilambur, Malappuram district and explored the survival of megalithic tradition among them. He observed the survival of the megalithic beliefs in life after death in the contemporary burial practice of the Cholanaikans, who practised primary extended burial. He stated that the Cholanaikans put all belongings of the deceased in the burial pit and there are little changes in the burial forms of men, women and children. For the deceased man they put iron axe, knife and other objects related to his life, for women they placed dresses and vessels containing food and prepare a hearth in the left side of the dead body and left burning after burial, which shows that women are the responsible person in the cooking even in the otherworld. For a deceased child they put dresses on the parents and placed milk, toys and all other things used by the child. Thus, he argues that the Cholanaikans still believed in the soul and its rebirth. Ajit Kumar also made an excellent justification about the absence of the primary burials in the megaliths of Kerala based on landscape archaeological perspective. According to him, "primary burials rarely have been found in the megalithic burials excavated in Kerala. Land use may be a factor for such a dichotomy. In a hunting gathering economy of the forest where land is in plenty, scattered extended burial practices could be practised without any hindrance. In midlands and plains, where there are

constraints for usable agricultural land, pastoral lands megalithic builders opted for cremations, group or collective burials and symbolic burials centred around relatively unproductive areas." It shows that the fractional burials seem to have represented a populace agrarian settlement of Iron Age and early historic society in Kerala (Kumar 2007:87-99).

Manjula Poyil has attempted to study the mortuary practices of the tribal population of north Kerala and found the survival of megalithic traditions in their burial practices. She argued that there is a striking parallel between the megalithic cultural traits and the burial practices of the present day tribes of Kerala. The tribes practised the erection of commemorative stones and believed in the life after death and therefore they enclosed all belongings of the deceased in the grave (2006, 2007:109-125).

Jaysree Nair accentuated the importance of the micro level inquiry of the Megaliths in Kerala through her research on the Megaliths of Kasaragod. According to Jaysree Nair, Megalithic people practised a combination of several means of subsistence like pastoral agricultural, crafts manufacturing like pot making and iron working. She stated that, "a full time nomad cannot construct monuments but this could be credited with a sedentary community, which structured the principal economy in all ways to whom the idea of a fixed place was visually drawn out establishing the relationship between people and land through the construction of these monuments". Her case study on Ummichipovil sepulchers furnished new insights on the survivals of the Neolithic in the megalithic culture and traced the transformation of a particular area from a Neolithic stage to the megalithic phase (Jayasree Nair 2007). V.P. Devadas has surveyed the megaliths of Eranad as part of his doctoral thesis and also other extensive field surveys being part of his Major Research Project of UGC, which still remain unpublished. The present author has also made a study on the cognitive aspects of the Iron Age burials of Malabar as part of the UGC Minor research project in 2016 (Rajesh.2016).

Conclusion

Megaliths are the largest tangible archaeological evidence for the study of the ancient past of Kerala. They were found in almost all districts of Kerala. Many of the sites have been discovered accidentally by the local people and in most cases such sites were destroyed shortly after the discovery. The number of efforts for documenting such sites and grave goods are too meagre. The above discussion proves that after 200 years, the institutional approach on Megaliths still remains in the antiquarian stage. Unlike the other parts of south India, the institutional attempt to conduct excavations and the publication of the reports are too inadequate in Kerala. The nature of megalithic studies in Kerala after 200 years of Babington's excavation reveals the urgent need of a serious academic involvement to document the existing megalithic burial monument and also demand institutional initiatives to find possibilities for documenting and protecting such sites with the cooperation of local people. Since the Megaliths belonged to the Iron Age and Early historic period, the early Tamil literatures, early Tamil

epigraphs, coins etc. can be used for a corroborative analysis of the megalithic society. Recently few studies on ancient Kerala have attempted to corroborate the archaeological data of Iron Age and early historic times with the contemporary literary and epigraphical data (Rajesh 2017: 486-506, Krishnan 2017, Nair 2020: 44-125). Thus the discussion made in this essay also demands a revisit to the past of ancient Kerala based on available archaeological reports and other contemporary historical data.

References

- Abhayan, G. S. 2015. Megalithic Rock Cut Caves at Kuttikkol, Kasaragod District, Kerala: Archaeological Investigations in 2015, Preliminary Report. Department of Archaeology, University of Kerala, Thiruvananthapuram.
- Aiyappan, A. 2007. Rock-cut cave-tombs of Feroe, South Malabar. *Quarterly Journal of the Mythic Society*, 23(1), Reproduced in M. R. Manmathan (Ed.), *Archaeology in Kerala: Past and Present* (pp. 23–28). Ferook College, Calicut.
- Ajesh, C. A. 2006. Archaeology of Wayanad (MPhil thesis). University of Calicut, Kerala.
- Allchin, B., and R. Allchin. 2008. *The Rise of Civilizations in India and Pakistan*. Cambridge University Press, New Delhi.
- Ambily, C. S. 2017. *Holocene Archaeology of Pamba Basin* (PhD thesis). Department of Archaeology, University of Kerala, Thiruvananthapuram.
- Ambily, C. S. 2021. *Megalithic Culture of Kerala: A Study of Pamba River Basin*. Sharadha Publishing House, Delhi.
- Babington, J. 1823. Description of the Pandoo Coollies in Malabar. *Transactions of the Literary Society of Bombay*, 3, 324–330.
- Banerjee, N. R. 1964. The Iron Age in India. In Misra, V. N., and Mate, M. S. (Eds.), *Indian Prehistory* (pp. 102–120). Poorna, Kozhikode.
- Cammiade, L. A. 1930. Urn burials in the Wynaad, southern India. *Man*, XXX(135), 90–95.
- Chedambath, R. 1998. *An Investigation into the Megalithic and Early Historic Period of the Periyar and Ponnani River Basins of Kerala* (PhD dissertation). Deccan College Post Graduate and Research Institute, Pune.
- Cherian, P. J., V. Selvakumar, K. P. Shajan, and K. Rajan. 2007. *Pattanam Excavations: Interim Reports* (2007–2015). Kerala Council for Historical Research, Thiruvananthapuram.
- Childe, V. G. 1947. Megaliths. Ancient India, 4, 5–13.
- Damodaran, K. 1992. *Kerala Charithram* (Malayalam). Prahath Books, Thiruvananthapuram.
- Darsana, S. 2007. Babington and the beginning of archaeology in Kerala. In M. R. Manmathan (Ed.), *Archaeology in Kerala: Past and Present* (pp. 100–108). Farook College Publication Division, Kozhikode.
- Darsana, S. 2015. Archaeology of death: An antiquarian perspective from Kerala. In Basa, K. K., Mohanty, R. K., & Ota, S. B. (Eds.), *Megalithic Tradition in India: Archaeology and Ethnography* (pp. 215–230). Aryan Books International, New Delhi.

- Devadas, V. P. 1993. *Archaeology of Eranad* (PhD thesis). University of Calicut, Kozhikode, Kerala.
- Fawcett, F. 1890. Rock-cut sepulchral chambers in Malabar. *The Journal of the Anthropological Institute of Great Britain and Ireland*, 25, 371–373.
- Gurukkal, R. 2009. *Unpublished excavation report of Anakkara Megaliths, Palakkad district*. Mahatma Gandhi University, Kottayam.
- Gurukkal, R., and M. R. R. Varier. 1999. *Cultural History of Kerala*: Vol. I. Department of Cultural Publications, Government of Kerala, Thiruvananthapuram.
- Herbert, A. 2010. Cyclops Christianus: Or an Argument to Disprove the Supposed Antiquity of the Stonehenge and Other Megalithic Erections (Original work published 1849). Kessinger Publishing, Whitefish, MT.
- John, K. J. 1974. Rock-cut cave tombs of Chitrari: Some new lights on the rock-cut cave tombs of Malabar. *Journal of Kerala Studies*, 1(4), 383–386.
- John, K. J. 1982. Perambra, 1979: New light on Kodakkals of Malabar. In R. K. Sharma (Ed.), *Indian Archaeology: New Perspectives* (pp. 148–154). Agam Kala Prakashan, New Delhi.
- Krishnan, D. 2017. *Iron Age and Early Historic Cultures of Central Kerala: An Investigation into the Settlement Patterns* (Unpublished doctoral dissertation). Department of Epigraphy and Archaeology, Tamil University, Thanjavur.
- Krishnaraj, K. 2015. *Marakkara, Patyam Chenkal Guha Ulkhananangalute Pradhamika Report*. Kerala State Archaeology Department, Thiruvananthapuram.
- Kumar, A. 2011. *Archaeology in Kerala: Emerging Trends*. Department of Archaeology, University of Kerala, Thiruvananthapuram.
- Kumar, A., and C. S. Ambily. 2014. Megalithic remains excavated from a cist burial at Niramakulam, Pathanamthitta district, Kerala. In K. N. Dikshit & A. Kumar (Eds.), *The Megalithic Culture of South India* (pp. 123–127). Indian Archaeological Society, New Delhi.
- Leshnik, L. S. 1974. South Indian Megalithic Burials: The Pandukal Complex. Franz Steiner Verlag, Wiesbaden.
- Logan, W. 1984. Finds of ancient pottery in Malabar. In J. Burgess (Ed.), *The Indian Antiquary: A Journal of Oriental Research* (Vol. VIII, 1879). Swathi Publications, Delhi. (Original work published 1879)
- Logan, W. 2010. Malabar Manual (1887). Asian Educational Services, New Delhi.
- Mehta, R. N. and K. M. George. 1978. *Megaliths at Machad and Pazhayannur, Talappally Taluka, Trichur District, Kerala State*. Maharaja Sayajirao University Archaeology Series Number 15. Maharaja Sayajirao University of Baroda, Vadodara.
- Menon, A. S. 1967. A Survey of Kerala History. S. Viswanathan Pvt. Ltd., Chennai.
- Mohanty, R. K. and V. Selvakumar. 2002. The archaeology of megaliths in India: 1947–1997. In S. Settar & R. Korisettar (Eds.), *Prehistory: Archaeology of South Asia* (Vol. 1, pp. 313–351). Manohar Publishers & Distributors, New Delhi.
- Moorti, U. S. 1994. *Megalithic Culture of South India: Socioeconomic Perspectives*. Ganga Kaveri Publishing House, Varanasi.

- Nair, K. J. 2007. *Megaliths in Kasargode: Understanding an Unexplored Region* (Unpublished master's thesis). Mahatma Gandhi University, Kottayam.
- Nair, K. J. 2008. Rock-cut caves of Ummichipoyil. *Advances in Arts and Ideas*, 4(1–2), 13–29.
- Nair, K. J. 2015. From site to landscape: Megaliths in Kasargod, North Kerala. In K. K. Basa, R. K. Mohanty, & S. B. Ota (Eds.), *Megalithic Tradition in India: Archaeology and Ethnography* (pp. 215–230). Aryan Books International, New Delhi.
- Nair, V. S. A. 2020. Pre-temple society: Historical antecedents. In *Temples of Early Medieval Kerala: A Study Based on Archaeological and Literary Evidences* (Unpublished doctoral dissertation). Department of History, University of Calicut, Kerala.
- Nambirajan, M. and C. Kumaran. 2011. A brief note on megalithic excavations conducted at Kadanad, district Kottayam. In A. Kumar (Ed.), *Recent Trends in Kerala Archaeology* (pp. 123–127). University of Kerala, Thiruvananthapuram.
- Nihildas, N. 2014. Archaeology of the Anjunad Valley: Megaliths and Rock Art in Idukki District, Kerala (Unpublished doctoral dissertation). Deccan College Post-Graduate & Research Institute, Pune.
- Peter, J. 2002. Dimensions of Megalithic Culture of Kerala in Relation to Peninsular India: An Interdisciplinary Approach (Unpublished doctoral dissertation). Department of Archaeology and Ancient History, Faculty of Arts, Maharaja Sayajirao University of Baroda, Vadodara.
- Pilla, V. R. P. 1997. Purananuru. Kerala State Publications. Trissur.
- Poyil, M. 2006. *Death, Funeral, and Ancestors: Cults of the Dead and the Malabar Tribes* (Unpublished doctoral dissertation). Department of History, University of Calicut, Kerala.
- Poyil, M. 2013. Megalithism and tribal ritualism: A passage through the Kurumbas of Attappadi. *Advances in Historical Studies*, 2(2), 54–56.
- Rajan, K. 2000. South Indian Memorial Stones. Manoo Pathippakam, Thanjavur.
- Rajan, K., and V. P. Yatheeskumar. 2007a. Thathappatti: Tamil-Brahmi inscribed hero stone. *Man and Environment*, 33(1), 39–45.
- Rajan, K., and V. P. Yatheeskumar. 2014. *Archaeology of Amaravathi River Valley: Porunthal Excavations* (2 Vols.). Sharada Publishing House, Delhi.
- Rajan, K., V. P. Yatheeskumar, and V. Selvakumar. 2007. The earliest herostones of India. *History Today*, 7, 118–121.
- Rajendran, P. 1995. A note on the megalithic cultural remains from the cist burials at Arippa in Kollam district of Kerala, South India. *Current Science*, 68(7).
- Rajendran, P. 2018. *Unravelling the Past: Archaeology of Keralam and the Adjacent Regions in South India*. Heritage Publication, New Delhi.
- Rajendran, P., and C. S. P. A. Iyyer. 1997. preliminary report on the characterization of copper and gold ornaments of the Arippa megalithic culture in Kollam district, Kerala, South India. *Man and Environment*, 22(2), 61–66.

- Rajesh, K. P. 2011. *Historical Geography of Kolathunadu: A Study of the Regional Formation in Medieval North Kerala* (Unpublished doctoral dissertation). University of Calicut, Kerala.
- Rajesh, K. P. 2014. Iron Age megalithic burials of Perumba, Kuppam, Valapattanam, and Pazhayangadi river belts, Kannur district, North Kerala, India. *Heritage: Journal of Multidisciplinary Studies in Archaeology*, 2, 399–401.
- Rajesh, K. P. 2014a. Vadakkan Malabar Samuhavum Charithravum. SPCS/NBS, Kottayam.
- Rajesh, K. P. 2014b. Muthumakkathazhi. SPCS/NBS, Kottayam.
- Rajesh, K. P. 2017. Megaliths of North Kerala: Formation of technologically advanced agro-pastoral Iron Age and early historic society. *Heritage: Journal of Multidisciplinary Studies in Archaeology*, 5, 486–506.
- Ramachandran, K. S. 1980. Archaeology of South India. Sundeep Prakashan, Delhi.
- Ramamurti, K. K. 2002. *Interim report of Ummichipoyil Megalithic excavation, Kasargod district, Kerala*. Archaeological Survey of India, Thrissur Circle.
- Rao, B. K. G. 1972. The Megalithic Culture of South India. *Prasaranga*, University of Mysore, Mysore.
- Rea, A. 1910–1911. Excavation: Prehistoric caves, Perungalam. Annual Report of the Archaeological Department, Southern Circle, Madras.
- Satyamurti, T. 1992. *The Iron Age in Kerala: A report of the Mangadu excavation*. Department of Archaeology, Thiruvananthapuram.
- Satyamurti, T. 1992a. Catalogue of Roman gold coins. Department of Archaeology, Thiruvananthapuram.
- Selvakumar, V. 2020. Report of the salvage digging at Kinalur 2016–17. *Social Orbit*, 6, Farook College, Calicut.
- Selvakumar, V. Cognitive aspects of the Iron Age-Early Historic ('Megalithic') cultures of South India. In K. K. Basa, R. K. Mohanty, & S. B. Ota (Eds.), *Megalithic Tradition in India: Archaeology and Ethnography* (pp. xx–xx). Aryan Books International, New Delhi.
- Selvakumar, V., Gopi, P. K., & Shajan, K. P. 2005. Trial excavations at Pattanam: A preliminary report. *Journal of Center for Heritage Studies*, 1, 83–88.
- Sewell, R. 1882. Lists of the antiquarian remains in the Presidency of Madras (Vol. 1). Government Press, Madras.
- Shajan, K. P., P. J. Cherian, and V. Selvakumar. 2006. Pattanam Mussiris Thanneyo. *Adharam: A Journal for Kerala Archaeology and History*, 1, 50–59. Mahatma Gandhi University, Kottayam.
- Shajan, K. P., V. Selvakumar, P. Radhika, K. P. Rajesh and S. Damodaran. 2013–2014. Archaeological excavation at the megalithic site of Anakkara, Palakkad District, Kerala, South India: A preliminary report of the 2008 season. *Tamil Civilization*, 25(1–4), Tamil University, Thanjavur.
- Sharma, R. K. 1990. *Unpublished excavation report of Naduvil, Kannur district*. University of Calicut, Kerala.
- Sharma, R. K. 1991. The Megalithic Culture of Kerala. *South Indian History Congress Souvenir*, University of Calicut, Kerala.

- Srinivasan, K. R. 1946. The megalithic burials and urn-fields of South India in the light of Tamil literature and tradition. *Ancient India*. Archaeological Survey of India, New Delhi.
- Stephen, S. 2017. Landscape archaeology of Upper Bharathappuzha basin. Department of Epigraphy and Archaeology, Tamil University, Thanjavur.
- Sujatha, K. S. 2018. Formation of material culture in the Bharathapuzha basin during the prehistoric and early historic period: A study of megalithic burials. Department of History, University of Calicut.
- Thapar, B. K. 1952. Porkalam 1948: Excavations of a megalithic urn burial. *Ancient India*, 8, Archaeological Survey of India, New Delhi.
- Uesugi, A., A. Kumar, G. S. Abhayan, S. V. Rajesh, and Y. Shimizu. 2020. Excavations of rock cut burials at Kuttikol, Kerala. In Rajesh, S. V., Abhayan, G. S., A. Kumar, and Ilahi, E. R. (Eds.), *The Archaeology of Burials: Exemplars from the Indian Subcontinent* (Vol. II). New Bharatiya Book Corporation, New Delhi.
- Varier, M. R. R. 2021. *Kuppakkolli excavation site notebook* (1987). *Kerala Archaeological Series*. Department of Archaeology, Kerala State, Thiruvananthapuram.
- Wheeler, R. E. M. 1941. Brahmagiri and Chandravalli excavations. *Ancient India*, 4, Archaeological Survey of India, New Delhi.
- Yatheeskumar, V. P. 2011. *Archaeology of Amaravathi River Valley, Tamil Nadu*. Ph.D. thesis, Pondicherry University, Pondicherry.