CHAPTER 1: INTRODUCTION

Archaeological investigation into the Early Historic (BC 300-500 AD) settlement patterns, social and religion institutions, agrarian system, craft tradition and urbanism is crucial to tracing the evolution of modern Tamil culture as a distinctive cultural entity (Fig. 1). For a proper understanding of the evolution of urbanism during the Early Historical period, we must consider the interaction between the metropolitan centres and various hinterland settlements (resource bases and production units), which maintained feedback relations. The long coastline of Tamil Nadu facilitated maritime trade, which could be traced back to later prehistoric (Megalithic) and Early Historic times. Cultural developments typical of the Early Tamilakam appear to have been governed by maritime contacts beyond its frontiers with a well-defined intra-regional trade network.

Arikamedu and a group of satellite settlements, in a radius of 100 sq. km. constitute the area of study primarily for its location amidst a number of megalithic as well as early historical sites. The archaeological evidence
Fig. 1: Map Showing Location of Ancient Tamilagam
reveals that Arikamedu had trade links with a number of Megalithic and other Early Historic settlements of the region. Arikamedu and other Megalithic settlements were located on river banks for enabling transportation through boats to be able to establish a web of trade communication in the region. At several sites the megalithic way of life survived even after the onset of external trade, especially with Rome links with Rome. This is attested by the evidence of Roman coins, various household goods buried in Megalithic graves as far inland as Coimbatore. Thus, Arikamedu’s position as a premier trade centre appears to date from prior to the Indo-Roman period. The Romans selected this place as their trading port on account of its proximity to the sea and its links with hinterland.

Therefore the present study aims at understanding the relationship between Arikamedu and its satellite settlements in a geographical perspective. They functioned together contributing to the economic development of the Iron Age society and its transformation through time.
1.1 Background

The site of Arikamedu is situated on the Coromandel Coast of southeast India, 4 km south of Pondicherry, within the Union Territory of Pondicherry (Fig. 2). A French astronomer, Guillaume Le Gentil who had visited Pondicherry in 1768-71, records that along the high bank of the Ariyankuppam River, diggings had revealed some 10 ft high walls, built with large-size bricks, which were one foot long and seven to eight "thumbs" large, and were put together with mud mortar (Le Gentil 1779, 2: 109-111). He also mentions seeing vestiges of wells exposed along the high river bank, which, according to him, were originally at least 20 feet deep and 4 ft wide, made from a serious of earthenware vessels placed above each other (Ibid.). The reference is, no doubt, to terracotta ring wells, a large number of which have been found in later excavations too. Le Gentil (Ibid.) considered the ruins to be the remains of an ancient town or large village which, according to the local local residents known as Virampattinam. Accordingly, on his map of Pondicherry, he identifies it as such.

Jouveau-Dubreuil's (1941:449) identification of the Arikamedu site with Poduke emporium mentioned in the Periplus Mari Erythraei (PME) is accepted by historians; thus, the name Poduke, perhaps deriving from Tamil
Fig. 2: Map of South India: Arikamedu and Related Ancient Sites
Puducheri, meaning new hamlet (the origin of the name Pondicherry), must have been in use at the time of the *Periplus*, believed to be ca. the middle to the second half of the first century AD (Casson 1989: 6-7). Since the meaning of the Tamil word *puducheri* implies a new settlement or, at least a change, it has been suggested that the name Puducheri was perhaps given when the settlement was transformed from a small village (name unknown) into a centre of commerce (Wheeler 1954: 146-7). If so, this must have occurred before the *Periplus* was written. Arikamedu, the name used by Wheeler, and by which name the site is best known today, is the local name for the mound.

The historical importance of the site and its connection with the Roman Empire was first recognized by Jouveau-Dubreuil, who had started collecting artifacts from the surface of the mound and the river bank as early as 1937. Several French scholars associated with the Ecole Francaise de Extreme-Orient and the Hanoi Museum also visited the site. In the year 1939, M. Goloubew is said to have found a carnelian gem, possibly from a signet ring. It reportedly depicted the head of Augustus in intaglio (Pattabiraman 1946: 15-16; Filliozat 1949: 18). Later in 1940 Krishnaswami Gownder, owner of a plot of land along the northern river front, dug an area of 60 X 30 m to a depth of 0.80 m for the purpose of planting coconut trees
From the debris, several artifacts were collected, including fragments of shipping amphoras, which were brought to the attention of Jouveau-Dubrevil. In the same year, A. Aiyappan, Government Museum, Chennai, was published by him in an article “A Dakshina Taxila, Historic Relics from Arikamedu,” *The Hindu* (March 23, 1941). Several other Indian scholars visited the site at about the same time.

Between 1941-44, however, small-scale excavations were undertaken by French scholars under the direction of L. Faucheux and R. Sarleau; the latter also plotted two grids, oriented north-south, for what were considered to be the most significant areas for excavations. Parts of the site were also declared protected by the French Government (Pattabiraman 1946: 19). These excavations were partially published in a brief report by Faucheaux in 1945 and by Pattabiraman in 1946. They were also summarized in the annual administrative reports of the Pondicherry Government, mentioned above. However, the most outstanding excavations were conducted by the Archaeological Survey of India under the direction of Mortimer Wheeler during a short season in the summer of 1945 with the extensive resources of the ASI at his disposal, since he was its Director General (Wheeler et al., 1946; Wheeler, 1951, 1954, 1976).
Wheeler’s excavations at Arikamedu were the most widely known, both in India and outside, partly because of the methodology followed by him, and partly because of the publicity given to the excavations by Wheeler himself in his numerous publications. Among them the most frequently cited one is *Rome Beyond the Imperial Frontiers* (1954). An important contribution of Wheeler’s work at Arikamedu was the preparation of a contour map of the site and the surrounding area, which was included in the excavation report (Wheeler et al., 1946: pl. VIII).

J.M. Casal continued excavation here in 1947 a fairly extensive area, more than any other archaeologist. During his three excavation seasons extremely valuable data were obtained, but published only selectively (Casal 1949; Casal and Casal 1956). Casal’s excavations, unfortunately, went largely unnoticed. Wheeler very briefly mention’s Casal’s findings in his publications after 1951 (Wheeler, 1954: 146-47). Whereas archaeologists in India have usually not cited Casal’s work.

After a comprehensive review of archaeological work at Arikamedu Vimala Begley initiated fresh excavation in the early 1990s (1989-92). It was a joint Indian-American effort. The renewed excavations revealed many new types of artifacts and structures. These have proved, beyond doubt, that the site was first occupied during the second century BC and that the height
of the region’s trade with the Mediterranean was from 50 BC to AD 50 (see Begley, 1996, 2004).

**Recent Under Water Investigation at Arikamedu**

In the middle of 2002 a team of archaeologists from the ASI, including those from the marine archaeology wing and Chennai circle carried out under water survey (Tripathi, 2002a: 74-107; Tripathi, 2002b: 146-149). This survey revealed that impact of erosion on the site and the original extent of the site was beyond the present limits.

Excavations at Arikamedu (conducted between 1945 and 1992) have brought to light the existence of small and large industries during the Pre-Roman period. Large quantities of worked and unworked shell, beads and pottery clearly indicated the existence of indigenous craft traditions prior to the arrival of Romans. Megalithic sites in the Gingee, Vaigai-Tamraparni and Kaveri valleys support the economic activity at Arikamedu. Shell cutting and pearl fishing were a major area of occupation of the people at many of the sites.
Chronology

Wheeler dated the site with the help of imported pottery viz. Arretine Ware and amphora from the Mediterranean. He found that almost all the excavated structures were constructed in the post of the Arretine ware period indicating that the site came to occupied during the first two centuries AD (Wheeler et al., 1946: 24). The presence of Celadon Ware and Chola coins of eleventh century AD indicated a long occupation of the site (Wheeler et al., 1946: 91). Excavations in 1989-1992 brought to light evidence of trade with the Mediterranean in third to seventh century AD, as well as occupation during the Chola period and contact with the Southeast Asia through trade (Begley, 1996: 30-35).

The evidence of Celadon ware clearly supports the idea that ships from India were engaged in trade with China. Probably the site lost its importance in the first half of the fourteenth century when a sand bar was formed at the mouth of Ariyankuppam River, which blocked the entry of ships to the river, and this important port fell in disuse.
Structures

Wheeler divided the entire site in two parts, northern sector and southern sector. The nature and date of the structures unearthed in these two sectors also varied. The structures at Arikamedu were made of bricks, which not survive the natural hazards.

The northern sector contained the remains of a substantial structure built about 50 AD. This building was identified as a warehouse. The warehouse was built on the foreshore of the estuary on which apparently timber buildings had already stood. The debris of port penetrated into it (Wheeler et al., 1946: 24-26). The brickwork with mud mortar had tough plaster outside to keep out water on this low-lying site. It must have been liable to flooding and was abandoned at an early date.

After AD 50 there were several suggestive stages of construction and reconstruction. The southern sector was occupied for about a hundred years or more. Occupation at the site continued till 200 AD. Main structures constructed in the southern sector were two walled courtyards, with carefully built dyeing vat tanks supplied and drained by a series of brick culverts.
Extensive use of drain, substantial pavements of large bricks and the absence of domestic features suggest its use for industrial purposes. Excavator conjectured that these tanks and courtyards were used in the preparation of the muslin cloth.

Besides, excavations conducted by French scholars and Wheeler unearthed several other structures. These were small in size, unconnected and fragmentary in nature. Some of these fragmentary structures found in excavations were drains constructed by means of corbelled walls, floored and roofed with horizontal bricks, a number of fragmentary walls, patches of brick floor, a fragmentary square or oblong structure of uncertain purpose, blocks of brickworks and pavements, ring-well or soak-pit built of pottery rings (Wheeler et al., 1946: 24), etc. Since these structures were very small in size and not connected with other structures it was not possible to ascertain their use or purpose.

**Stratigraphy**

Stratigraphy in the southern and northern sectors varies. Due to vandal digging and extensive damage caused to it the stratigraphic sequence is not clear. In the southern sector natural soil was found at 3 m. above the sea level. It was out of reach of flood. Habitation started here later but continued
after abandonment of northern sector (Wheeler et al., 1946: 27). The cultural deposits were divided in three main phases- Early Middle and Late which were further divided in sub-periods. There was continuity of occupation throughout.

The Problem

Despite several excavations during the last century many questions regarding origin, development and extension of this town, chronology, ancient port, trade mechanism, etc. are as yet not satisfactorily answered. How and why Arikamedu became an important centre of commerce on the Coromandal Coast needs to be explained. The excavations were conducted in limited area with limited aims. Except two structural complexes, the other structures unearthed were fragmentary in nature. Some of the areas excavated by Wheeler and Casal have suffixed a great deal of damage.

Further, how Arikamedu was related to inland interior settlements and what type of political or economic organization may have governed the location of the port needs to be explained.
Whereabouts of Arikamedu artifacts

Artifacts unearthed from Arikamedu, from time to time are now in various museums and private collections across the world. Perhaps, no other site can claim the distinction of having its artifacts distributed among a large number of individuals and institutions.

A part of Jouveau-Dubreuil’s collection is in the Government Museum at Egmore, Chennai. A few of the early finds by the French were sent to the French Museum at Hanoi and Louvre Museum in Paris. Some objects from the early French excavations (1941-43) are reported to have been given to State Government museums in Bangalore and Hyderabad in South India. Yet, at least some of the material from these digs appears to have been lost. Most of the material from Wheeler’s excavation is in the collection of the ASI at Purana Qila in New Delhi while others are in the collection of Institute of Archaeology, London. More materials from the site are in the collections of the Government Museum, Chennai and the British Museum, London. The selected materials unearthed during the excavations conducted V. Begley’s team in 1989-992 is with the ASI, Chennai. A small
collection of Arikamedu objects is in the Aurobindo Ashram Library at Pondicherry.

**Arikamedu through the Ages**

One can reconstruct the long and interesting history of Arikamedu by piecing together information from multiple sources such as archaeology, Sangam and Western literature.

The occasional finds of stone axe with pointed butts, both on the surface and in the archaeological trenches, at Arikamedu, suggested a Neolithic substratum at the site (around 4000 BC.?). The use of such stone hand-axes during later periods was also known in many other South Indian sites (Suresh 2008: 57).

As per the latest archaeological evidence, the site was first occupied, on a regular basis, around the late third century or early second century BC. This period belongs to the Late Iron Age or Megalithic Age in South India. The earliest habitation was in the Southern sector and not in the Northern sector. Fishing and bead-making were important occupations of this community.
We are not sure about as to when exactly Arikamedu began its trade with the Mediterranean region. Probably, the trade started, on a modest scale, around the second century BC., soon after the occupation of the site. But trade was at its height from the mid-first century BC to mid-first century AD. During this period, the site may have been a part of Sangam Chola Kingdom that had its capital further south at Uraiyur. Significantly, a square copper coin of this dynasty has been found during V.Begley's archaeological digs (1989-92) at Arikamedu. Alternatively, Arikamedu would have been a part of the territory of the Malaiyaman chieftain who controlled the regions close to Arikamedu with Tirukoilur as their capital. Or else, the Velir chieftains ruled the region. Perhaps, each of these dynasties controlled Arikamedu, one after the other. At this point of time, both the Northern and Southern Sectors were occupied, probably by different ethnic communities (Suresh, 2008). There was continuous interaction between the occupants of the two sectors. The site evolved into an urban industrial centre where different types of pottery, beads, ivory artifacts and textiles were produced. The industrial area was spread over both the sectors. The southern sector was also the main market place. The port, however, was located in the northernmost part of the Northern Sector. The settlement of Roman and other foreign traders and merchants was located in this sector.
No wonder, the quantity of Mediterranean artifacts is much larger in this Sector than in the Southern Sector.

Towards the end of the first century AD the volume of trade decreased probably due to changes in the pattern of trade and trade routes. But the settlement did continue and new buildings were constructed between the third and sixth centuries AD. Bead-making continued to be an important industry. For trade activities of this period, there are evidences in the form of a few fragments of rare fifth century AD imported amphorae at the site. By now, the power of the Sangam Cholas and Malaiyamans declined and the site would have been under the control of the Pallava dynasty that ruled this region with Kanchipuram as its capital (Suresh, 2008: 58).

We have more concrete evidence for the occupation of the site between the tenth-eleventh and fourteenth-fifteenth centuries AD. These elements include beads, buildings and roof tiles. During this period, Arikamedu was a part of the vast empire of the Imperial Cholas. From the Cholas, the territory may have passed on to the Vijayanagar Empire that emerged as a major power in South India from 1336 to 1565 AD. Chola coins including those issued by Raja Raja I, have been frequently found at Arikamedu. Typical Chola pottery and mud lamps also occur at the site. A Chola period Buddhist sculpture has been reported from the neighborhood. During this
period, the site appears to have again emerged as an international trade centre. The Chinese ceramics and coins unearthed at the site indicate that the site had brisk trade with China. There is a reference to the Arikamedu port in a Medieval Chinese text. Arikamedu’s contacts with the Persia region is indicated by the occurrence of Persian blue glazed pottery (Suresh, 2008: 59).

Probably, the site was abandoned sometime in the sixteenth-seventeenth centuries. There are references to brick-robbing at the site in 1734.

Towards the end of the 18th century, after the French conquest of the area, the site was briefly reoccupied. In 1771-73, a seminary and residence was built for the Jesuit missionaries. Close physical examination of the seminary ruins has revealed that this building was mostly built with new bricks but interestingly, some old large bricks removed from structures of the Roman trade period (first century AD) were also used. The seminary was abandoned in 1783. The locals refer to the ruined seminary as the ‘Mission House’. During this period, a few other buildings were also constructed at Arikamedu. Portions of these buildings were noticed during Casal’s excavations at the site. This period saw the import of blue-and-white ceramics from China.
During the nineteenth and early twentieth centuries, the history of Arikamedu appears more obscure. Sometime during this period, large portions of the site came to be used for agricultural operations. Mango, Coconut and Tapioca were cultivated. Cultivation was allowed to continue even after the archaeological importance of the site was recognized and parts of the site declared a protected area.

In 1954, the French rule in Pondicherry ended. Now, the entire Pondicherry region including Arikamedu joined the Republic of India. Since then, Arikamedu has been a protected site of the ASI.
1.1 Aims and Scope of the Work

This research aims to conduct investigations into (a) settlement pattern of Arikamedu and its satellite settlements; (b) evolution of urbanism in the region, particularly during the Indo-Roman period; (c) delineate the role of agriculture and crafts specialization and diversification at the sites; (d) a locational analysis of early rock-cut Jaina caves, bearing Tamil-Brahmi inscription and; (e) the importance of port settlements of Kaveripattinam and Korkai.

1.3 Methodology

The following research techniques have been adopted in this study

1.3.1. Archaeological Fieldwork

A thorough archaeological survey spanning five filed seasons from 2003-2008 was carried out in the river valleys of Gingee, Pennar and Vellar and its tributaries and distributaries. Village to village survey was conducted to discover Early Historic sites. Previously reported sites were re-visited during the survey. Topographic maps of 1.50000 scale, were studied before undertaking the survey.
1.3.1 *Section Scraping*

Section scraping was carried out at the site of Sengamedu or Nallur (near Virudhachalam) to assess the thickness of the habitation deposit on the Manimuktar river. Bridge construction across the river has caused disturbance of the site exposing antiquities of the Early Historic period.

1.3.2 *Collection of Artifacts*

A random collection of antiquities was made from the surface of the sites. Significant potsherds diagnostic to the period under study were selected after a detailed description of the contexts.

1.4 *Analysis and Interpretation of Data*

The following methods were used in data analysis, interpretation and reconstruction of the material culture of the sites in the study area

1.4.1 *Theoretical and Methodological Studies*

The data collected from the sites has been interpreted taking into account modern models and methods. The zonal approach of Trigger (1968)
has been adopted in the reconstruction of Early Historic settlement pattern. The ethnographic and the ‘Centre and Periphery’ models have been adopted while interpreting the Early Historic trade mechanism.

1.4.2 Review of Work on Arikamedu

Published literature on excavations has been used as secondary data source. Some of these publications are part of larger studies on ancient trade and economy. Except for the excavation reports, studies on the Arikamedu material have been few and far between until recent times. In 1952, a brief article on the dating of the Arretine Ware (terra sigillata) was published by L. Ohlenroth (1952); studies of the Brahmi and Tamil-Brahmi inscriptions on potsherds by M. J. Filliozat (1947: 107-18; 1949: 1-29); a brief article on glass rods by B.B. Lal (1958); and archaeomagnetic studies of five bricks from the site by Ramaswamy et al. (1976-80). In the 1980s there appears to have been a renewed scholarly interest in Arikamedu and a series of independent studies appeared. These include a study of the beads by Peter Francis, Jr. (1976-80, 1987, also 1991); I. Mahadevan’s (1970, 1973, 1986) research papers on the ancient name and pottery inscriptions of Arikamedu; a study of the bead technology by John Gwinnett and Leonard Gorelick (1988); E. Marianne Stern’s (1986, 1987, 1988) work on Roman glass, and V. Begley’s own work on the chronology of the ancient settlement and some
of its pottery (Begley 1983, 1986, 1988) and Rome and India: The Ancient Sea Trade (Begley and De Puma, 1991) and S. Suresh’s (2004) study of the pottery from Arikamedu in the wider context of the Roman and Pseudo-Roman objects found in India. Besides, information has been availed from many scholars in the form of personal communications. In addition, ancient and colonial accounts have been thoroughly surveyed for collecting information on the study region.