ARCHAEOLOGICAL
EXCAVATIONS OF TAMILNADU

Volume. II

[Kodumanal, Karur, Poompuhar]



Authors

Dr. R. Poonkuntran

K. Sridharan

Dr. S. Vasanthi

V. Ramamurthi

General Editor

Dr. T. S. Sridhar, IAS,

Principal Secretary and Commissioner

ARCHAEOLOGICAL EXCAVATIONS OF TAMILNADU

VOLUME II

[KODUMANAL, KARUR, POOMPUHAR]

ARCHAEOLOGICAL EXCAVATIONS OF TAMILNADU

VOLUME II

[KODUMANAL, KARUR, POOMPUHAR]

Editor

Dr. T. S. Sridhar, IAS.,

Principal Secretary & Commissioner

Authors

Dr. R. Poonkundran

K. Sridharan

Dr. S. Vasanthi

V. Ramamurthi

Government of Tamil Nadu, Department of Archaeology

Chennai - 600 008

2011

First Edition : 2011
Publication No. : 240
No. of Copies : 500

**ARCHAEOLOGICAL
EXCAVATIONS OF TAMILNADU
VOLUME II**

©
Principal Secretary & Commissioner of Archaeology,
Government of Tamilnadu,
Chennai-600 008.

Price : Rs. 50/-

Printed at :
Department of Archaeology Press,
Halls Road, Egmore,
Chennai-600 008.

Dr. T. S. Sridhar, IAS.,
Principal Secretary & Commissioner

Department of Archaeology,
Tamil Valarchi Valagam,
Halls Road, Egmore,
Chennai-600 008.

PREFACE

The prime function of the department of Archaeology is to conduct excavations in archaeologically and historically important places of Tamil Nadu. So far the department has conducted excavation in 34 places all over Tamil Nadu and brought out valuable findings which revealed the ancient historical significance of the State. The excavation reports have been published for 30 sites.

The book Archaeological Excavations of Tamil Nadu - Volume II contains the report on excavation carried out at the following places.

1. Kodumanal - 19
2. Karur - 1976
3. Poompuhar -

Kodumanal was known as *Kodumanam* in the early Sangam works. The discovery of number of Carnelian beads, iron objects, Iron Age pottery were the important findings from Kodumanal. Karur was the ancient capital of the Chera dynasty of Sangam period. It was also known as Vanji in Sangam literature. The excavation findings at Karur strengthened other evidences such as the finding of good number of coins, inscribed gold, silver and copper rings in Amaravathi river bed. Inscriptions bearing the names of the Chera kings near Karur at Puzhalimalai throws valuable light on the existence of Karur as the capital of the Cheras of

Sangam age. Poompuhar was the second capital and trade centre of the early Chola dynasty. The department carried out off shore and on shore excavations at Poompuhar in four seasons. The discovery of wharf at Kizharveli, lead ingots and brick structures in the Bay of Bengal certainly proved that the city once existed but was swallowed by sea.

I am pleased to bring out this volume for the benefit of scholars, students and the general public. I thank the Government of Tamil Nadu for providing adequate funds to bring out this publication. I wish to place on record the contribution made by Thiruvalargal Dr. R. Nagasamy, Natana. Kasinathan, K. Damodaran and A. Abdul Majeed, former Directors of this department in the conduct of the excavations. I wish to congratulate all the excavators, the officers who prepared the reports and the press for their sincere efforts.

T. S. SRIDHAR

CONTENTS

			Pages
PREFACE			(i)
1. KODUMANAL	...	...	1 - 50
2. KARUR	...	...	51 - 82
3. POOMPUHAR	...	...	83 - 142

Front Wrapper : 1. Exposed Megalithic Burial - Kodumanal

Back Wrapper : 1. Inscribed Potsherd - Poompuhar
2. Carnelian Beads - Kodumanal
3. Inscribed Potsherds - Karur
4. Gold Ring with Inscription reads 'Thaiyan Othalan' - Karur

EXCAVATION AT KODUMANAL
1999-2000

CONTENTS

INTRODUCTION

1. HISTORICAL BACKGROUND
2. TRENCHES
3. CULTURAL SEQUENCE AND CHRONOLOGY
4. POTTERY
5. GRAFFITI MARKS
5. ANTIQUITIES
6. CONCLUSION

INTRODUCTION

Kodumanal in (11° 6' N° 30 5' E) Perundurai taluk of Erode District is located on the Southern bank of the river Noyyal , a tributary of the river Kaveri. It is also about 15 km west of Chennimalai, a famous weaving centre and 40 km South East of Erode and 45 km in the Eastern side of Coimbatore.

Kodumanal is none other than the ancient Kodumanam and is an important city in the ancient period. It is refered in the sangam literature *'Patirruppathu'*. The Sangam period poets like *Kabilar, Aricilkilar, Palayai Gowthamanar and Kakkaippadiniar* mentioned the importance of Kodumanam in their songs. Kabilar speaks about the fine variety of earthern ware from Kodumanam. From this we can infer that high quality pots were manufactured here. There is a reference about the stone industry which was one of the important industries in ancient times.



HISTISTORICAL BACKGROUND

The historical importance of Kodumanal can be revealed by studying the history of the near by places.

Vellalur

Vellalur, the ancient trade centre is also located in the southern bank of the river Noyyal. It is 16 km from Coimbatore 60 km from Kodumanal and 5 km from Perur. It is referred in the inscriptions of the Kongu Chola as "Vellalur". But in *Cholan poorvapattayam* it is mentioned as 'Velir' a chief of the clan was the ruler of this area. Hence this place is known after the name of the chief as 'vellalur'. A mound very close to the vellalur called as '*uppliar Medu*' or '*Uppliyar thittu*' is the ancient mound. Black and red ware, Russet coated ware, Red slipped ware and Black ware sherds were collected on the surface. Broken pieces of dishes, vases and parts of urn pieces were recovered in this mound. Even today large number of potteries are collected by the Archaeologists. Many hoards of Roman coins were noticed during the British period. In the year 1842 five hundred and twenty two coins, in 1891, five hundred and forty seven coins in 1932 one hundred and forty four dinars were collected. These gold and silver coins belongs in between 1st century BCE to 4th century CE were unearthed. Roman ornaments were also found in this village.

During the medieval period Siva and Vishnu temples were constructed by the Chera and Kongu cholas. After the Kongu cholas,

Vellalur slowlely lost its historical importance. In Kadukuttai near Vellalur a Megalithic burial site was found and they were without the burial.

Sulur

Sulur, a medieval period trade centre is situated in the left bank of the river Noyyal and 16 km from Coimbatore . Megalithic burials were noticed in this place. The coins of 3rd century BCE were unearthed in the burial. Two medieval period Vatteluthu inscriptions were also found. Another in the village habitation site was also noticed in the left bank of the river Noyyal and it is 3 km from Sulur. Thin and thick variety of Black and Red ware, Russet coated ware and Black ware are noticed. Apart from this, semi precious stone beads were also collected from Sulur.

Boluvampatti

Boluvampatti a Medieval trade centre is situated in the western bank of the River Noyyal. 'Kottaimedu or Kattaikadu' an ancient mound is found at the east of the Vellingiri hills. More than 50 acres of medieval period habitation mound was located at the Aruswamy gounder's land. At Kottaikadu two temples named Sri Nageswarar temple and Muthuvaliaman temple were constructed during the medieval period. The inscription noticed in this temple mention this village as "Muttam" alias Amarapuyanga nallur'. It is also mentioned that the great Perur merchant Dhanapala donated gold for these temples. The inscriptions of Kongu cholas, Pandyas and Hoysalas were also noticed in this temple.

In the year 1980, the State Department Archaeology conducted an excavation here and six trenches were laid in two successive seasons. Beautiful terracotta figures, Buddha figure, Insignia of Tamil, variety of beads and medieval period potteries were unearthed. Hundreds of

unused cups and lids were unearthed in this excavation. Apart from this two notable sherds were unearthed. Among them one is with Tamil brahmi charecters . Another is with vattaduffu.

Perur

Perur is an another historical important town which is situated 6 km west of Coimbatore and lies on the bank of the river Noyyal. Noyyal is also called as "Kanchi and Kanchima nadhi". In the eastern side of the town called 'Natham', is an ancient mound and it covers an area of 50 hectares. *'Thiruneeru medu, Upiliyar medu'* are some of the important places of the mound. The Archaeological survey of India under the guidance of K.V. Soundrarajan and B .Narashimaiha excavated this area in 1970-71. In the excavation three cultural periods were occurred without any break. The famous Siva temple named Pattieeswarar is found near the *Thiruneerumedu.* Chola, Pandyas, Hoysala Vijaya Nagara and Nayak period inscriptions are also found in the temple.

The State Department of Archaeology conducted excavations in the year 2002 in four places. From these excavations 4 periods of occupation were occurred and there was no gap in the layers. On the basis of the antiquities occurred from the excavation a continuous habitation from 3rd century BCE to 900 are proved. Brick structures, Semi precious stones, grooved tiles and "L" shaped tiles were recovered. Terracotta engraved with a bow, graffitimark, T.C Beads, earlobes. Human figures T.C games man and T.C.lamps were also collected from the excavation.

Irugur

It is also located in the western bank of the Noyyal River and 12 Km from Coimbatore. The habitation mound named "Muttam" found near the

Railway line K.G.Puram. The mound yielded fine variety of black and Red ware, Russet coated ware and black Slipped ware. A Sarcophagus was also collected near the village. Habitation mound and burial complex are covered an area of more than 25 areas and the lithic appendage completely disturbed.



TRENCHES

Totally 15 trenches were excavated at Kodumanal. They are as follows.

Trench KML-1

KML-1 trench was laids at in the Selasama Kadu or Chelavanan kadu on the northen bank of the river Noyyal. Chelavanankadu is located in the Eastern side of the village Kodumanal at a distance of 3 km. This trench was laid particularly 20 meters north of inscribed stone slab which is in the Chelavanakadu. It is measured 4x4 meters, but actual cutting area was 4x3 meter after leaving 50 cm on each side as baulk line. Orientation of the trench was in East West direction. It was dug up to the depth of 2.10 meters. It consists of three layers. Semi precious beads, Shell bangles, Glass bangles, Sawed conchs, deer horns ,hip hops, spouts, grooved tiles, copper coin and fry fan were unearthed from this trench.

Graffiti marks and Brahmi script sherds were collected from the trench. A pit was noticed below the Natural Soil and it may be a bin or granary.On the basis of the stratification and antiquities three layers were observed . Lower most layer 3, belonging to the period I and other two layers were belonging to the period II

Trench KML-2

KML-2 was located 100 meters away from the trench KML-1 in the Northern side. Dimention of this trench was 4x4 meter and the actual

cutting area was the 4x3 meters after leaving 50 cm on the both side. It is oriented in East west direction. The total depth of the trench was 1.20 meters. The following antiquities were exposed from this trench. They are T.C. lamps, Shell bangle pieces, Sawed conch, Graffiti marks and Iron ores. Two floor levels were also exposed in this trench. Totally three layers were found and the first and second layers were belonging to the phase II and remaining layer belongs to the period of phase I.

Trench KML-3

This trench was laid very close to the southern side of the trench KML-2. It was 10 meters away from the Palmyra tree. 120 meters Northern side to the inscribed slab and 35 meters South of the Ramaswamy Gounder house, it is oriented east west direction and measured 4x5 meters. But the actual cutting edge was 4x5 meters after leaving 50cm as baulk line. It was dug up to the depth of 1.70 meters. There are three layers observed in this trench. The top two layers belonging to the phase II and lower most layers belong to phase I. It was based on the antiquities and ceramics collected from the trench. Iron nails, crystal beads, shell bangels and sawed conches were collected in this layer.

Trench KML-4

It was laid 1 meter away from KML-3 in the Southern side. This trench was 10 mts away from the Palmyra tree, 120meters from the inscribed slab and 35 meters, south of the Gunaswamy gounder house. It is oriented east west direction and measured 4x4 meters. But the actual cutting edge was 3 x 4 meters after leaving 50 cm baulk line. The total depth of this trench was 2.10 meters. It was observed three layers. First two layers belonging to the phase II and third layer belongs to phase I.

In the phase II two floor levels were noticed and these two floors were found one above the other. The floors were made up of clay and ramped gravels. Average thickness of this floors were 15 cm.

Graffiti marks, Brahmi sherds , grooved tiles, bone arrow heads, Shell bangles ,crystal beads ,Stone beads, Glass bangles and T.C. beads were collected. From the trench large number of grooved tiles were collected and the same time two floor levels were also observed.

Trench KML-5

KML -5 was laid near the KML 4 in the eastern side and it was 10 meters away from the Palmyra tree and it was also laid in the Chelavanakadu. It was also 4x4 meters and the cutting edge was 4x3 meters. 50 cm. Baulk line was left on both sides.

It was dug to the depth of 1.20 meters. Three layers were noticed in this trench. Here also two phases were occurred and they are period I and II. Third layer represented the phase I and remaining two were represented period II. Crystal beads, T.C. beads, bangle pieces, Iron nails are at the depth of 80 cm, a 16 face fine crystal bead was exposed. Black and Red ware, Russet coated ware, Red ware, Black ware, coarse black ware, Red ware etc. were found in these three layers. Average thickness of the layer was 40cms.

Trench KML-6

KML-6 was laid southern side of the KML-5 and East to the KML-4. Orientation of the trench was east west in direction and the measurements of this trench was 4x4 meters. But the actual cutting area

of the trench was 4x3 meters. A baulk line of 50cm was left in the North and South side of the trench. The natural soil was obtained at the depth of 2.10 meters.

In the course of the examination three layers were exposed . On the basis of the antiquities and sherds they fall into two main phases. Out of these three layers the first two layers belongs to period II and the remaining last layer was period -I. This trench yielded huge quantity of antiquities. They are potteries with Graffiti marks, and Brahmi scripts. Semi precious stone beads, bangle pieces, sharpening stones, dabbers, arrow heads of both iron and bone etc.were unearthed.

Trench KML-7

KML-7 was laid to North of the previous year trench KML-1 Orientation of this trench was North South and measurement 5x5 meters and cutting area was 4x5 meters. It was excavated up to the Natural soil and three layers were identified. These layer were running on all the sides of the trench.

Hip-hops, T.C blowers, Graffiti marks, Brahmi sherds, Iron objects, sickles, carnelian beads, deer horns, Iron ores, glass bangles, shell bangles, sawed conches and full shaped two conches were collected from this trench. On the basis of the antiquity and stratification two periods of habitation were observed. Layers 1 and 2 belonging to the period II and the layer 3 belonging to the period I.

Trench KML-8

It was laid in the western side of the KML. 7 and 20 meters away from KML-7. Orientation of this trench was east west direction.

Measurements of this trench was 5x5 meters after leaving 50 cm. baulk line leaving in North and South sides of the trench. It was excavated up to the natural soil.

In this trench also three layers were represented. It was divided into two periods on the basis of the material culture. They are period I and II. Period I was represented in the lowermost level and succeeding two layers were represented period -II.

The following antiquities were collected in this trench. They are T.C. crucible, blowers, T.C. beads, T.C. animal head., paste beads, Iron abjects, chisels, bone arrowheads, Iron arrow heads, Urn pieces and Roman pottery were found in this trench. Grooved tiles were appeared in this trench. A coarse ware red bowl and black and red ware bowl were collected in this trench at the depth of 50 cms and 70 cms respectively. Two Brahmi inscribed sherds were also noticed.

Trench KML-9

KML-9 was very close to the last years' excavated site and at the back side of the Ramaswamy Gounder house. It is also in east west orientation the length and breadth of the trench was 5x5 meters . But actual cutting area was 4x5 meters. In this trench also 50cm baulk was left.

Three layers were observed in this trench and on the basis of the findings they fall into two successive periods. They were period I and II. Period I observed in the lower most layer 3 and the other two layers were belongings to period II. Natural soil was exposed at the depth of 2.15 meters. T.C. blowers, Graffiti marks, bone arrow head , Brahmi sherds, bangle pieces, sawed conches and T.C.lids were collected in these layers. A broken vase was also noticed.

Trench KML-10

KML-10 was laid South side of the KML-9 and at the back side of the Ramaswamy Gounder House. The length and breadth of the trench was 5x5 meters. After leaving 50 cms on the both sides the actual cutting edge was 5x4 meters.

With the help of Brahmi sherds and antiquities three layers were observed and these ware divided into two periods. They are period I and II .3rd layer represented period I and other two upper layers represented period II. These periods were fixed on the basis of the following antiquities Brahmi sherds Graffiti marks, Shell bangles, beads, Iron nails, ring stand, sawed conches and bone arrow heads. One of the interesting findings f rom the trench was a small ring stand. Perforated sherds, Black and red wares, Black wares and Russet coated wares were also observed.

Trench KML-11

KML-11 was laid in the Eastern side of the trench KML-10 at the distance of 30 meters and it was on the top of the mound. Orientation of this trench was in east west direction and length and breadth of the trench was 5x5 meters and actual cutting area was 5x4 meters. After leaving 50cms baulk line on either side it was dug up to 1.75 meters

Three layers were observed and these layers were also divided into two periods. The first period found in the layer 3 and the period second found in other two layers. These periods were divided on the basis of the following ceramics and antiquities. T.C perforated ware, Iron bangle pieces, T.C. bowls, carnelian beads, shell beads, and bangles. At the depth of 1.44 meters one posthole was found and it was filled with river stand. A flooring was occurred at the depth of 1.48 meters and contained with clay and rubbles.

A Black and Red ware vase collected at the depth of 70cms and it contains single Brahmi script on the body of the bowl.

Trench KML-12

The trench is located to the western side of the trench 2 and 6. Total depth of this trench was 2.50 mts. It was East West direction and the actual cutting edge was 5x4 meters after leaving 50cms baulk line on both sides of the trench

Totally three layers were observed in this trench and these layers were divided into two periods. Lower most layer was belonged to period I and upper most two layers were belonging to the period II. This classification was based on the potsherds and antiquities observed in these layers. Black and red ware, Red slipped ware, Russet coated ware and Coarse Red ware and Black ware. Antiquities like terracotta beads, Graffiti marks, Brahmi inscribed sherds, stamped pottery, Octagonal (Six sided) long bead. Shell beads, Iron objects, perforated ware, Iron chisels and long necked spout were exposed.

One posthole was exposed in this trench and it was filled with river sand.

Trench KML-13

It was laid on the top of the mound and eastern side of the trench KML-12. It located at the southern side of the Subramanya Gounder house. The Orientation of the trench was in the east west direction. The trench measured 5x4 meters after leaving 50cm baulk line on both sides. The natural soil was reached at the depth of 1.15 meters. Granite boulders exposed below the natural soil level.

Three layers were exposed in this trench. Out of this three layer lowermost layer belonging to period I and succeeding two layers

belonging to period II. These periods were assigned on the basis of potsherds and cultural deposits. Bangle pieces, beads, Iron arrow head and T.C. spout were exposed. Iron chisel was also unearthed in the trench.

Trench KML-14

This trench was laid southern side of the inscribed stone and also Palaniswany Gounders House. It measured 5x5meters and actual cutting edge was 4 x 4 meters after leaving 50cm baulk line. In this trench three layers were exposed. These three layers were divided into two periods, on the basis of the available antiquities and ceramics. Upper most two layers 1 and 2 were period II and lowermost layer 3 was period to I.

T.C. Crucible, shell bangles, beads, spindles iron objects and Graffiti marks were exposed. A notable iron anthromorfic figure like object was exposed at the depth of 1.05 meters and it was in fragile condition. The Natural soil was reached at this depth of 1.40 meters

Trench KML-15

This was laid very close to the KML-14 trench and southern side of the inscribed stone slab. The trench measured 5x5 meters. But the cutting edge was 4x5 meters after leaving 50cm baulk line on both sides. The total depth of the cultural deposit was 1.30 metes and below this level stone boulders were occurred.

Three layers were noticed in this trench and based on the cultural deposits these three layers were divided into two periods. Layer 3 belonging to the period I and the remaining two layers were belong to the period II. Iron Nail, Iron arrow heads, Black and Red ware, Black ware, Russet coated ware and coarse Red ware were collected from the trench.



CULTURAL SEQUENCE AND CHRONOLOGY

Totally 15 trenches and three megalithic burials were excavated in two different areas. One on the *Chelavanakadu* and other in *Thronak* kadu which is very close to the habitation site. Two main periods could be distinguished on the basis of the pottery and other cultural elements. The following distinguishing features were observed.

1. Period –I -300 BCE – 100 ACE Megalithic periods.
2. Period –II- 100 ACE – 300 ACE Early Historical period.

Period I

This period represented in the lowermost layer 3 in all the trenches. Average thickness of these layers was 30 cm. In this layer crucibles, Iron Swords, an Iron arrow head, Graffiti marks, Brahmi sherds and copper filter with minute perforation, decorated sherds with designs, double edged axes, Semiprecious stones, particularly carnelian beads and crystal beads were occurred. A black ware lid with a dove head was also unearthed in the megalithic burial complex

Black and Red ware, Russet coated ware, Red ware, red slipped ware and black slipped ware were predominant potsherds of this period.

Period II

This period is represented by layers 1 and 2 in all the 15 trenches. Average thickness of this layers were 3 0 cms. The characteristic

features of this period were limited number of Graffiti sherds , Brahmi sherds, semi precious stone and beads. In addition to this antiquity, deer horns, shell bangles, glass bangles, sawed conches, T.C. objects, bone and iron arrow heads. Few Roman pot sherds were also occurred in this level only. Dull red ware, red slipped ware and coarse red ware were increased numbers.

A round bin was exposed in this period and it may be served as granary. In addition to this grooved tiles were also occurred in this cultural period.

On the basis of the above mentioned materials that the people of the first period were mostly artisans and traders. In this period Semi precious stone bead industries and iron industries were prevalent. But in the second period the above industries were decreased, where as agriculture actvities increased in the second period. In the same manner Graffiti marks and Brahmi scripts were decreased.

On the basis of the above ceramic types and antiquities the chronology of this site is fixed as follows:

1. Period – I 300 BCE – 100 ACE Megalithic period.
2. Period –II 100 ACE – 300 BCE Early Historical period.

Megalithic Burial

The Cairn circle were found on the Eastern and Northern side of the habitation mound. These Megalithic burials were locally called as *'PandiyarVeedu or Pandiyar kuli'.* The burial area was locally called as *'Thoranak kulik kadu and Sambal kadu'.* More than 1 00 burials were

observed in this area. Among these there were three cairn circles having monolithic stone slab planted in the periphery. A menhir was also noticed in this area.

Two types of Megalithic burials are noticed. The first type burial circle is made of vertical slabs planted at regular intervals and inner circle is made out of boulders. The second type of burial circle is also same as the above, and the inner circle is made of triangular slab stone placed in five to eight courses so as to form perfect circle.

This is t he first time the State Department of Archaeology excavated a burial sites. In the next season in 1998 two burials were exposed.These burial circles were named as Meg.1,Meg.2 and Meg.3 Out of these burials Meg.I and Meg.2 were bigger in size, where as Meg.3was small in size.

'MEG-1

Meg-1 was located about 31.6 meters south east of the burial was excavated by the Thanjavur Tamil University and 22.25 meters North West of Meg-8. In this burial following parts were noticed. They are as follows:

1. Main cist
2. Passage.
3. Subsidiary cist
4. Urn burial
5. Buttress wall
6. Inner circle
7. Boulder Circle and(Outer circle)
8. Slab circle.

Pit

A rectangular pit was dug within the circle. The cist contains Main cist, passage, subsidiary cist and urn burial. The breadth and length of the cist was 5.6 and 6.2 meters. The total depth of this pit was 1.75 meters. The floor of this pit was hard and just above the Natural soil.

Main Cist

The main cist is a transcepted cist and facing in the eastern side. All the four orthostats are planted above the floor slab and the eastern orthestate divided into two parts. Other three ortho slabs are single slabs. The floor slab measured 205 x1.60x01.6 meters. Western orthostat 2.17x1.86x0.18 meters. Northern and Southern ortho slabs were 3.20x2.05x0.10 meters and 2.8x1.74x0.20. The two eastern ortho slabs measuring 2.48x1.75x0.16 meters.

Port hole

A gap was observed in the Southern chamber of the Main cist and it may used for ceremonial purposes at the time of placing the human Skeleton remains on the floor. The shape of the Port hole is trapeze and measures 23cm, 46 cm base and the height is 54cm.

Passage

Generally the passage formed in front of the chamber. This passage is also rectangular in shape and measuring 1.40x1.20 meters. This passage is having few additional slabs in the southern side. The western and northern walls of the subsidiary cist seem as Northern side slab of the passage. In the southern side a vertical slab measuring 1.40x0.90x0.01mts. was fixed as the southern wall of the passage

Another one slab is fixed in the Eastern side to close the passage. Normally this passage and portholes were used for ceremonial activities at the time of placing the human skeletal remains. In addition to this, carnelian beads were collected at the port hole and passage level.

Subsidary Cist

In this burial complex only one subsidiary cist was noticed. It was found in the Northern side of the passage. The subsidiary cist also consist of floor slab and above this slab four orthostats were planted and it was connected with a capstone. Orthostats ware measuring 1.50x0.90 meters. The cap stone measuring 2.10x1.90x0.20 meters. The port hole was scooped out in the Southern side of the ortho. The shape of the port hole was look like an arrow head. It measuring 1.5 mts. height 45 cm lower portions and width of the hilt was 18 cms. The maximum width of the arrow head was 45cm. This is the first time a full shape arrow head was noticed in this burial complex.

Urn Burial

An Another interesting point is an urn burial was also noticed in the northern side of the main cist. The height of the urn was 95 cms and 80 cms at the shoulder portion. It is having a cornelian beads and thick rounded rim portion.

Inside the urn, deer bones, swords, double edged axe and 700 etched carnelian beads were placed as grave goods. Large quantity of deer bones were collected from the urn and it was assumed that a deer was sacrificed for the ceremonial purposes. Near these bones a sword was placed in vertical position . The tip of the sword was facing upside

and hilt was in the downwards. In addition to this a double edged axe was also found. The 5 cms thick urn was closed with the lid of the black and Red ware and it was crimbled due to capstone. A cap stone was placed above the urn.

Buttress Wall

Seven buttress walls were exposed with in the main cist Three buttress walls were found in the southern side, two buttress walls in the western side and two buttress walls were erected in Northern side. The buttress walls were made up of rubbles and it helps to keep orthostats intact and to avoid the cist collapse. It was observed that the walls were continued from the base to top of the pit.

Circles

Two stone circles were found around the cairn .One circle was made up of slab circle and another one was boulder circle. Totally 15 stone slabs were found in the stone slab circle. The diameter of the circle was 10.95mts. The gap between the slab circle and the boulder circle was 50cms breadh. The stone boulders were placed without any gap and the inner side wall like structure was made with the help of lime stone boulders. The gap between the outer slab circle and the holder circle was packed with stone rubbles. Three courses of boulders were raised to the height of 70 cm. The main purpose of this stone slab was to protect the inner circle.

Grave Goods

Grave goods were placed around the Main cist. In addition to this grave goods were also kept in the Urn burial. Bowls, dishes, pots in black and Red ware, four legged ware and red polished ware are found in this

cist. Along with this 17 arrow heads, two bowl like objects, double edged battle axe, 4 swords and knife were recovered. Copper object like strainer and etched carnelian beads were also collected. A long sword measuring 1.70 meters length 4 cms breadh was recovered in the Northern side of the Main cist and oriented east west direction. Few iron arrow heads were also collected near this sword. One interesting bow like object was placed in the Northern side of the main cist at the depth of 65cms and maximum length was 1.25meters and the height is 43cm. An arrow head was placed very close to this bow to represent symbolically it is a bow.

Potsherds with Graffiti marks were also collected with in the burial.

MEG-2

Meg-2 was located 30 meters away from Meg-1 on the western side. It is also a cairn circle. Diameter of this cairn circle was 11.10 meters. This cairn consists of stone slab circle, boulder circle and inner circle. Total height of this burial was 80 cms from the ground level. The heap contains pebbles, lime stones, Iron slags and earth mud.

Cist

Main cist was more or less box like rectangular shape. Transipted slab was found in the middle of the main cist. This slab was used to divided the south and north chambers. It was 3.20 mts. and 10cm thickness and the western ortho stat was 1.70 mts. length and 15 cm thickness. South ortho stat was 3.37 mts. and 12.5cm thickness and remaining northern orthostatic was 2.47 mts. and 7. 5cm thickness.

Passage

The passage was formed in front of the south chamber of the main cist. Southern side of the passage slab was 1.67mts. 7.5cm thickness.

Two Northern side slabs were 1.67mts. 7.5cm thickness on western side slab was measuring 1.72 mts.10cm thickness. Eastern side slab was measuring 2.47 mts. and 7.5cm thickness. Northern side passage slab was the orthosat of the subsidiary cist. This passage was used for the ceremonial purpose.

Subsidiary Cist 'A.'

The subsidiary cist was in the Northern side of the main cist and also near the Northern chamber and the same time it was in front of the passage. The eastern side ortho stat of the main cist was also used as western side of the subsidiary cist. Southern side of the ortho stat was also used as the Northern side slab of the passage. It looks like square in shape. The measurement of the southern side ortho stat was 1.67cm length and 7.5 cm thickness; northern stat was 97cm length and 10cm thickness and eastern sides ortho slab was 1.55 mts. length and 10cm thickness and remaining western ortho slab was 1.17mts. length and 10cm thickness.

Circles

This cairn circle contain the following architectural features. 1. Slab circle, 2. Stone circles.

1. Slab Circle

The slab circle was 12.12 mts diameters and the circle was made up of 45 rectangular stone slabs erected almost at regular interval at the distance of 38cm to 87 cm.

2. Stone Circle (Inner Circle)

This circle was found in next to the above said slab circle. This slab circle was 11mts diameter. This circle was also made out of 23 irregular rectangular shape boulders placed at the distance of 80cm. to 100cm.

Boulder Circle

The boulder circle was found in next to the side circle. The boulder circle was 9.5mts dia, and 34 irregular boulders were found in the circle. The purpose of the circle was to keep the boulder in circle It was the outer circle.

Grave Goods

Grave goods were placed around the main and subsidiary cist and with in the passage. The grave goods were pieces of T.C. four legged jar, T.C knobs, carnelian beads in various size and shapes. Iron swords in different size, 10 Iron nails, 8 swords , arrow heads in different sizes, Iron sickle, iron nails etc.

MEG-3

The State Department of Archaeology excavated an another burial in Kodumanal in 1977-78. The Meg-3 was very near to the Meg-2. This Meg-3 was small in size and the dia was 11mts.The heap contains small boulders of uneven stones.

The cairn circle contains outer circle, main cist, passage and subsidiary cist. This boulder circle was made up of granite irregular stones. 28 boulder stones were found in the circle. Out of 28 boulders 24 boulder were big in size. Main cist looks like square in plan and it was divided in to two chambers. The transcipted slab was divided in to the chamber measurement of early orthostat ware completed here. The measurement of the orthostat were as follows; western orthostat was 137.5 cm length and 17cm thickness and North orthostat was 267cm length and 15cm western side length and 12.5cm thickness slab was projected in to the passage for about 8.75cm.

POTTERY

The site yielded quite a large number of pottery in the different phases within the two cultural periods. The potteries may be categorized as follows:

1. Black and Red ware
2. Red slipped ware
3. Russet coated ware
4. Red ware and
5. Black slipped ware.

Black and Red ware, red slipped wares were found in the habitation mound as well as in the burial site. Coarse red ware and Black slipped were collected mostly in the habitation site

Black and Red ware

This ware was made of well levigated clay and wheel turned. They were bright and highly polished surface. These vessels are plain and occasionally found few grooves at the shoulders. The Black and Red ware appeared in all the layers and had a thin section, in the case of bowls and comparatively thicker section in the case of basins, Jars and lids. The black surface on the exterior was not uniformly found due to the firing technology.

At the first period thin and medium variety of wares were noticed. The thin variety includes mostly bowls and straight or slightly convex sides

Passage

This passage was found in front of the southern chamber. Measurement of the passage slab was in earlier measurement of the passage slab was in earlier side slab was 212cm length and 15cm thickness in western side slabs walls 115 cm length and 125 cm thickness and Northern side slab was 142 cm length and 75cm. Southern side slabs were 180cm Length and 125cm thickness.

Subsidiary Cist

The subsidiary cist was found in the northern of the main cist. It is also having a passage. Measurements of the cist was142cm length and 75cm thickness in northern side , 132.5 length and 15cm thickness in eastern side , 150cm length and 125cm thickness in the western side and 67cms length and 10cm thickness



But the thick variety ware were found wide mouthed vessels and basins. In period-II the thick variety increased in quantity particularly the big vessels and basins. In the burial complex unearthed black and red ware vessels were medium and thin varities like the period I were unearthed.

Red Slipped ware

The red slipped ware was highly polished and well fired. Generally the red slip is noticed on the exterior surface and interior surface of the neck portion. This pottery was found in both the burial as well as habitation mound. Important shapes of the ware were four legged jars in burials, dishes and bowls in habitation area.

Russet Coated ware

This pottery was predominant in the period I and decreased in the period- II. The Characteristic feature of this ware were the decorated variety of designs made with a paste of kaolin or lime under a wash of Russet colours occur. This pottery were made out of well levigated clay and wheel turned. The thin red slipped ware designs were dishes and shallow bowls. The Russet coated designs ware found exterior and interior also. The designs Ware wavy lines, semi circles, Oblique lines, verticle lines ending with horizontal lines and simple horizontal lines.

Coarse Red ware

This is the only pottery found through out the occupational deposits. It was comparatively less in number in lower levels but in upper levels large quantity of sherds occurred. The red ware had only few types consisted mostly of Jars, vases and basins. In period I the rims of the Red ware were normally plain and simple. In the period II quality of this ware was much poor and black patches on the exterior surface was noticed.

Black Slipped ware

This ware was predominantly used for the burials and it was similar to Red polished ware in technique and fabric. The main difference was only the colour. Three types of ware were noticed. They are ring stand, lids and small bowls.



GRAFFITI MARKS

Kodumanal excavation yielded a rich collection of graffiti marks. In addition to this, Brahmi Script sherds were also found in the excavation. Both Brahmi and graffiti marks were obtained in the Black and red ware, Russet coated ware, Red ware and Black ware. These were occurred in both period I and Period II

Large numbers of Graffiti marks sherds were collected in the excavation where as Brahmi scripts were very limited. Out of 175 graffiti marks 75 in Black and Red ware, 70 Red ware, 70 Russet Coated ware and 10 Black ware were noticed. The Black and Red ware pottery containing more graffiti marks in number than the Red ware. The graffiti marks were pre-firing marks as well as found in the exterior surface. Mostly they were found on the shoulder of the vessels closer to the rim portion. From available evidences it may be said that the graffiti Marks were found in group and single graffiti marks were very limited.

So far 41 Brahmi sherds were observed and 99 Graffiti marks were collected.

Description of the Graffiti marks

1. Looks like a Brahmi letter 'Ka' symbol on the Red ware.
2. Stylized Sun symbol occurred on the Russet coated ware.
3. Sun symbol found on the Coarse red ware sherd.
4. There are two vertical lines with small dot on the centre found on the coarse Red ware.

5. Two symbols are found on the Red ware sherd. First look like the Brahmi letter 'Na'.
6. Two symbols are there. Both are same. A vertical line intersecting a curvilinear line.
7. Two oblique lines cutting each other on the top occurred on the Black and Red ware.
8. Two parallel vertical lines and a wavy line at the end all are joined in a line symbol engraved on the Black red ware sherd.
9. Brahmi letter like 'Na' found one above the other on a Black and red ware bowl.
10. Two parallel lines on the coarse red ware, Fragment.
11. Fragment.
12. Coarse red ware contains two oblique lines in the thin portion.
13. Fragment.
14. One vertical line and another one horizontal line joined in the top symbol found on a black and Red ware.
15. Group of parallel lines and wavy lines found on a Red ware.
16. Bow like symbol engraved on the coarse red ware.
17. One vertical line and two oblique lines joined on either side in the top and looks like arrow mark found on a Red ware.
18. Bow and arrow symbol found on a Black and red ware.
19. Fragment.
20. Boat like symbol found on a Black and red ware.

21. Fragment.
22. Brahmi letter 'tha' symbol found on a Black and red ware.
23. Inverted Brahmi letter 'tha' like symbols found on a Black and red ware sherd.
24. Fragment.
25. Boat like symbol found on a Black and red ware.
26. A human figure with a bow like symbol found on a Black and red ware.
27. Fragment.
28. Fragment.
29. Two symbols are there. Hill like symbols are found on a Coarse red ware.
30. Fragments.
31. Fragment.
32. Triangle symbol occurred on a Red Ware.
33. Arrow Mark like symbol.
34. Arrow Mark like symbol.
35. Arrow Mark like symbol.
36. A sun symbol engraved on a Red Ware with eight lines.
37. Brahmi letter 'Ma' like symbol occurred on a Red ware.
38 Bow and arrow found on a Black and red ware sherd.
39. Ladder symbol occured in the neck portion of a Russet coated ware.

40. Brahmi letters 'Tha' like symbol found on a coarse Red Ware sherd.
41. Brahmi letter 'ka' like symbol found one above the other on a Red slipped ware.
42. Swastika symbol found on a Black and red ware.
43. Similar like 35 but a small line found on a left side.
44. Three symbols are found wavy line, Brahmi letter 'tha' like symbol and 'ka' like symbol.
45. Stylized fish like symbol found on a coarse Red ware.
46. A small triangle symbol found with in the big triangle symbol with coarse Red ware.
47. Tamil letter 'Va' Symbol.
48. Ladder symbol occurred on a Black and Red Ware.
49. Fragments.
50. Three symbols are there. Parallel lines are found.
51. Group of parallel lines on a Black and Red ware Fragment.
52. Fragment.
53. Similar to the above No.33.
54. Two symbols are found on a coarse Red ware. Brahmi letter 'tha' symbol.
55. Box like symbols are found on a Russet coated ware.
56. Three parallel loops found on the Rim portion of a coarse Red Ware.
57. Similar to the 53 but similar on a opposite side also.

58. Ladder symbol on a Black and Red ware.

59. Fragment.

60. Bird like symbol on a Black and Red ware,

61. Looks like a plant root symbol on a Black and Red Ware.

62. Looks like a Brahmi latter 'Ma' on a Black and Red Ware.

63. Similar to the 53.

64. Fragment.

65. Star symbol found on a Russet coated ware,

66. Two symbols are found at the coarse Red Ware. Triangular with a round in the top and swastika on a end.

67. Fragment.

68. Two symbols like Brahmi letter 'Ma' on a course Red ware.

69. A symbol with trident one side and spear like shape on other side occurred on the Blake and Red ware.

70. Swastika symbol found on a coarse Red ware.

71. Similar to the figure 69.

72. Plant roots like symbol on a Russet coated ware,

73. Arrow mark like symbol and side contain many line on a Black and Red ware sherd.

74. Fragment.

75. Similar to the symbol 51.

76. Similar to the symbol 73.

77. Bird symbol found on a Black ware.

78. Ladder caring an 'equipoles' on a Russet coated ware.

79. Two Oblique lines with a plant in the centre like symbol found on a coarse Red ware.

80. A vertical line joined with two oblique lines in one side with Coarse Red ware.

81. Arrow mark like symbol and parallel lines found on a coarse Red Ware.

82. Similar to the symbol 17.

83. Similar to the symbol 80.

84. Concentric loops and arrow mark symbols are found on a Black ware sherd.

85. Fragment.

86. Similar to the symbol 79.

87. Stylized fish symbol found on a Black ware sherd.

88. Similar to the symbol 83,

89. Fragment,

90. Ladder symbol on a Black and Red ware sherd.

92. Similar to the symbol 53.

93. Group of parallel lines on a Black and Red ware sherd.

94. Swastika symbol on a Black and Red ware sherd.

95. Plant root like symbol in Barrows wave.

96. Three symbols are here Similar to the symbols 53.

97. Fish bone like symbols on a cause Red ware.

98. Plant roots like symbol on a Black and Red ware.

99. Similar to the symbols 80

Pottery

Black and Red ware

1. Featurless rim, convex-sided body.Deep bowl.
2. In-curved rim, carinated body.Deep bowl.
3. In-curved rim, carinated body.Deep bowl.
4. In-curved rim, carination at the base.Deep bowl.
5. Tapering sides, sharp carination towards base. Deep bowl.
6. In-curved rim, tapering sides, sharp carination towers base. Deep bowl.
7. As above.
8. Convex-sided body, shallow bowl.
9. Everted rim, Deep bowl.
10. Slightly carinated body, Deep bowl.
11. Pointed rim, tapering sides, carinated body.
12. Pointed rim, almost straight sided body. Deep bowl.
13. Featureless rim, convex sided body, Deep bowl.
14. Pointed rim, carination at the base. Deep bowl.
15. In-curved rim carination at the shoulder. Deep bowl.

16. Slightly everted rim mild carination at the base.
17. Convex sided body.
18. Almost straight-sided body.
19. Everted rim, convex-sided body.
20. Internally rolled rim, carination at the shoulder.

Russet coated ware

1. Round Base. Deep bowl, bears wavy lines closely drawn.
2. Round Base. Deep bowl, bears a serious of thin horizontal bands.
3. Almost straight , sided body Bowl, with thick wavy lines drawn.
4. Convex sided body, bears thick cross bands in the exterior.
5. Clubbed rim, convex-sided body, with cross bands in the body.
6. Convex-sided body, bears thin wavy lines closely drawn.
7. Everted rim, concave-convex-sided body. Shallow bowl.
8. Beaded and everted rim. concave, convex body. Shallow bowl.
9. Pointed rim, mild carination towards base. Deep bow, with thick horizontal lines.
10. Convex-sided body. Shallow bowl, with thick wavy bands in the exterior.
11. Convex-sided body, round body, with criss-cross bands in the exterior.

Red slipped ware

12. In-curved rim lid.
13. Convex-sided body bowl.

14. Beaded rim, deep carination towards base.
15. Concave-convex sided rim bowl.
16. Out turned rim, neckless, globular body.
17. Out turned rim, neckless, globular body.
18. Out turned rim, concave neck globular body.
19. Externally pointed rim, convex-sided body.
20. Out turned undercut rim, tapering body.
21. Flared rim. Lid cum bowl.
22. In curved rim lid.
23. In curved rim lid.
24. Flared rim, globular body.
25. Flared rim, neckless, globular body.
26. Flared rim, globular body.

Red ware

1. Thick in curved rim basin.
2. Clubbed rim, thin band below the neck of the basin.
3. In- curved rim, nail impression in the exterior, basin
4. Flanged rim, fort neck basin..
5. Flanged rim, wide mouth , round base , basin.

6. Externally beaded rim, sagger base,lid.
7. Incurred rim tapering sides, sharp carination towards the base , lid.
8 . Externally Grooved below the rim bowl.
9. Externally sharpened rim. carinated body bowl.
10. Externally beaded rim, sagger base, lid.



ANTIQUITIES

Interesting antiquities were collected in the Kodumanal excavation. They are metal objects, Terracotta objects and beads. One important copper strainer object was unearthed from the excavation. The maximum diameter of the strainer was 17cm. at the top, the cup with perforation found at the centre and the inner diameter was 2cm and the depth was 6cm .12 iron arrow heads were also placed near this object. So it shows that they knew the metal technology which making metallurgy in those days.

Large number of iron objects were collected in the Kodumanal excavation .They are 17 arrow heads ,four swords, two bow like objects ,one axe and knife .These objects were recovered in the burial at two levels .The first set was collected just below the cairn packing and the second in the top of the pit.

In the first set a long sword measuring 1.70meter in length and 4cm breadth was placed in the northern side of the main cist. Another one implement object was a conical shaped wooden handle impression was 15cm in length.

A bow like object was noticed at the back side of the cist. It was 120cm length and 43cm height. Another one unidentified object was also noticed below the sword. In both the cases an arrow head was placed near this object and it may be symbolically indicating the purpose of this object. The shape of the bow is similar to the bow depicted in the Chera coins collected in and around this region.

Beads

Gemstone industry was an important occupation in Kodumanal in the early period. This area was famous for the semi-precious stone industry. The famous beryl stone was collected in Padiur. Sapphire stones found in Sivanmalai and quartz stones were found in Arasampalayam. These places are very near to Kodumanal.

Beads like quartz, soap stone, jasper, agate, carnelian, beryl etc., were unearthed in the habitation area but carnelian with etched variety were collected in the burial complex .In the first burial 700 carnelian etched beads were collected .

Beads collected in this area shows that the bead manufacturing industry existed in this area .Finished, unfinished, drilled, undrilled, polished and unpolished were unearthed in this place.

In addition to this deer horn, beads, shell bangles, conch and bangle pieces were collected.

List of Participants

Under the guidence of Thiru. Natana. Kasinathan, then Director

1. R. Poongundran
2. V.Ramamurthi
3. T. Subramanian
4. P. Gowthamaputhiran
5. R. Selvaraj
6. V. Magudeswaran
7. M.T. Sridharan
8. N. Balakrishnan

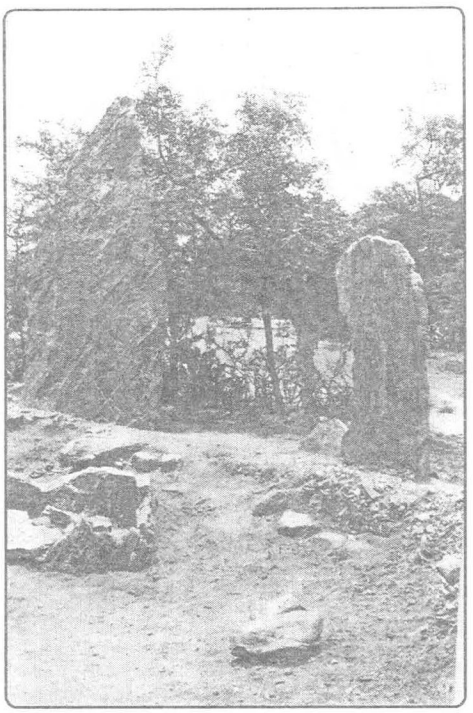


CONCLUSION

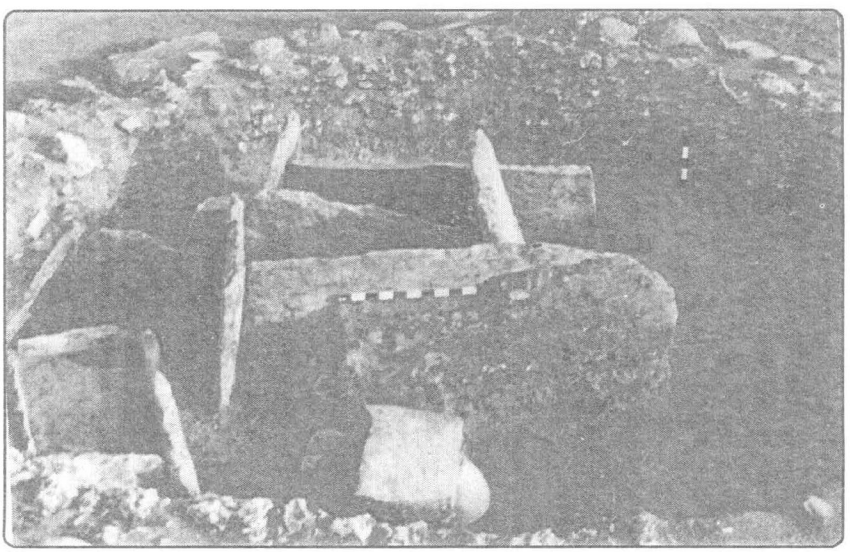
From the above archaelogical evidences Kodumanal Chronologically coincide with the date of sangam anthologies i.e. 2nd Century B.C.E. to 2nd Century .C.E. The finding of Large number of beads, iron objects, Roman pottery reveal that this place Kodumanal (Kodumanam is sangam literature) an important trade centre for sea trade via west Coast. It is also proved from the excavation that Kodumanal was a busy place of bead Industry and trade in those days.

References

1. பதிற்றுப்பற்று, உ.வே.சா. பதிப்பு, சென்னை, 1990.
2. K. Rajan, Archaeological gabetter of Tamil Nadu, Manoopathippakam, Thanjavur, 1977.
3. K. Rajan, 'Kodumanal Excavation - A Report' Gouvaram, B.K. Gururaja rao Felicitation volume, Harnam Publishing Company, New Delhi, 1996.
4. S.R. Rao, Excavation at Paiyampalli, District North Arcot, Indian Archaeology, a Review 1964-65; 1967-68.
5. K.r. Srinivasan, and N.R. Banavjee, Survey of South Indians Megalithis, Ancient India Vol. 9, 1953.

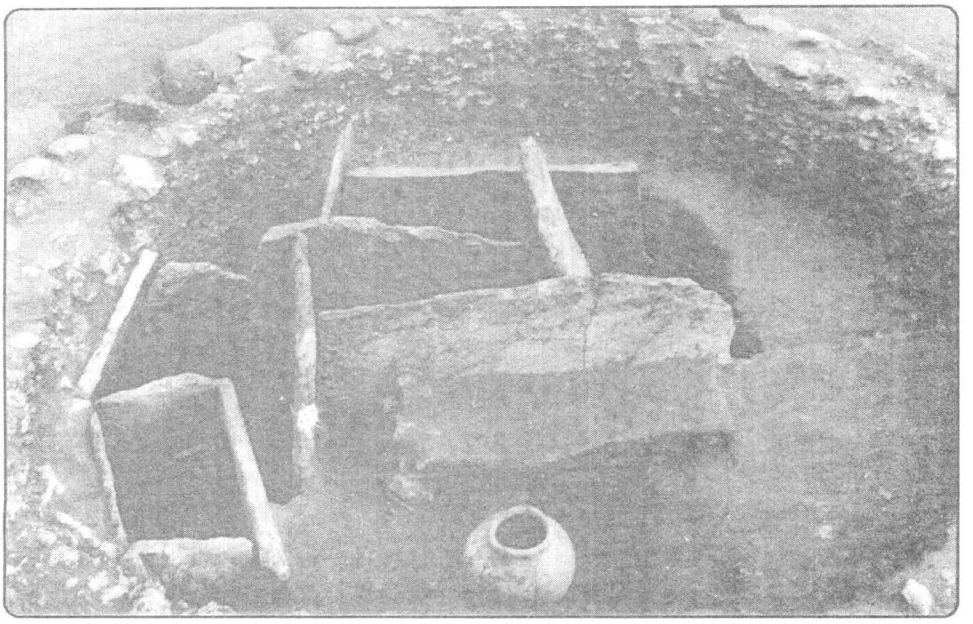


Menhir



Exposed - Burials

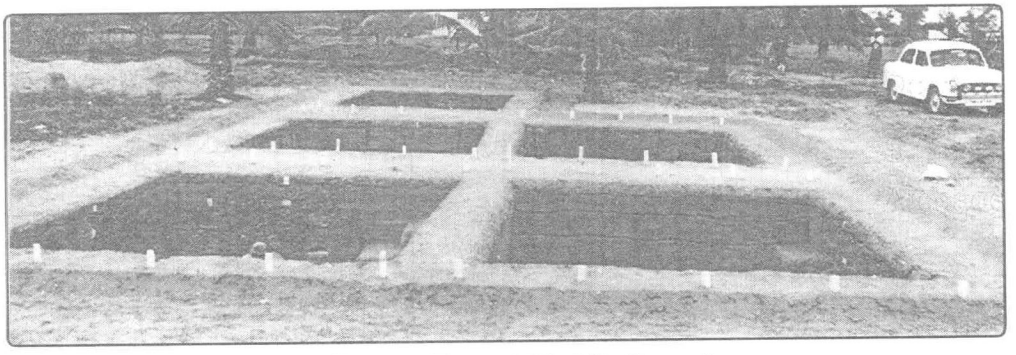
Exposed - Burials



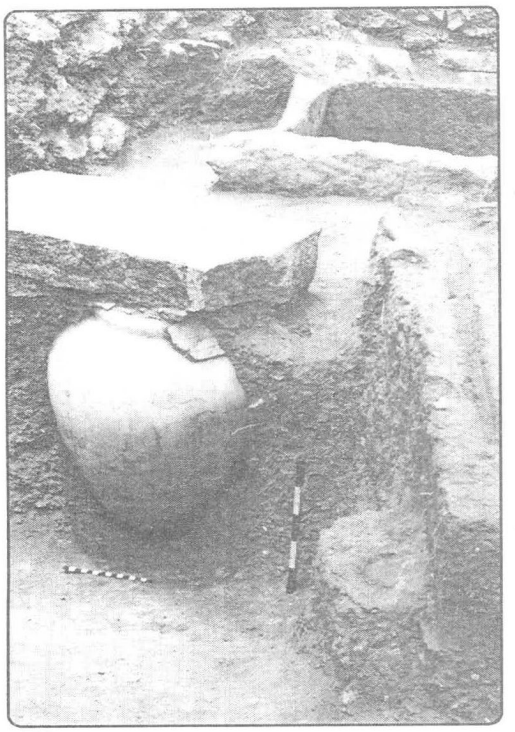




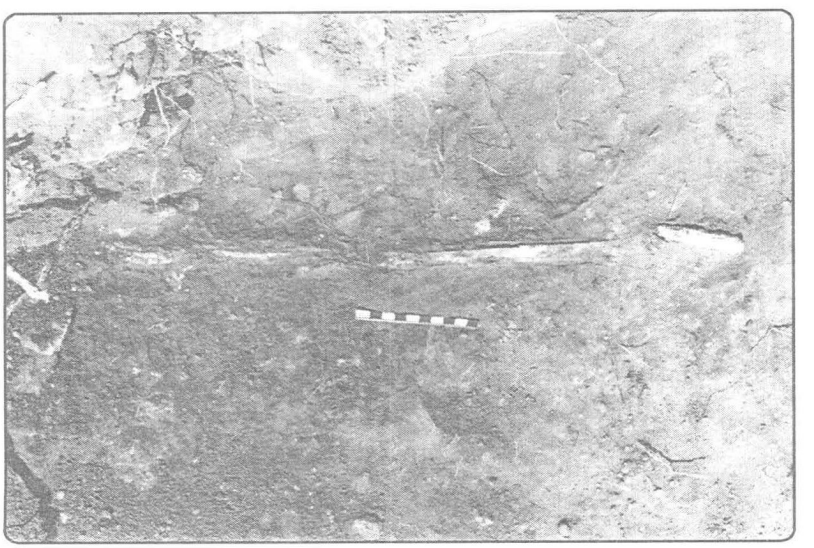
Iron Objects *insitu*



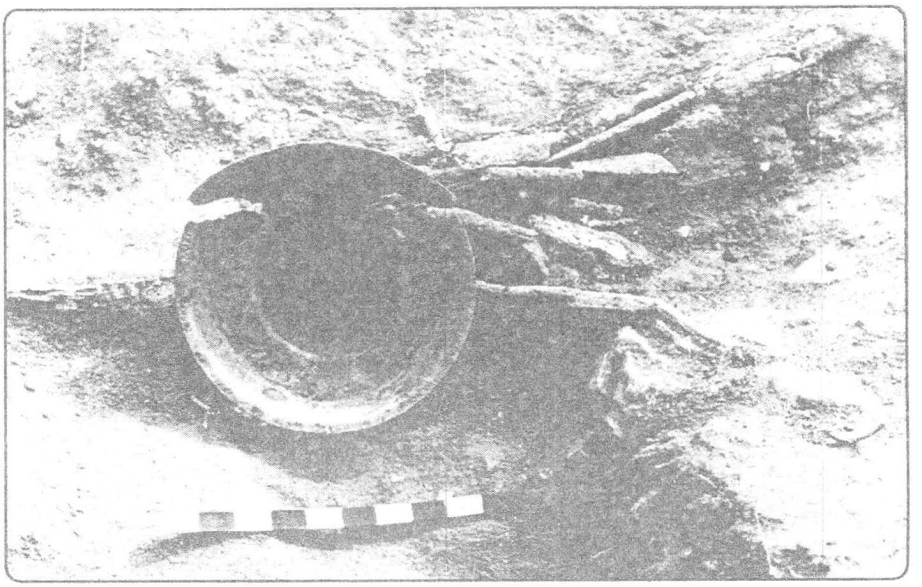
Excavation at Habitation site



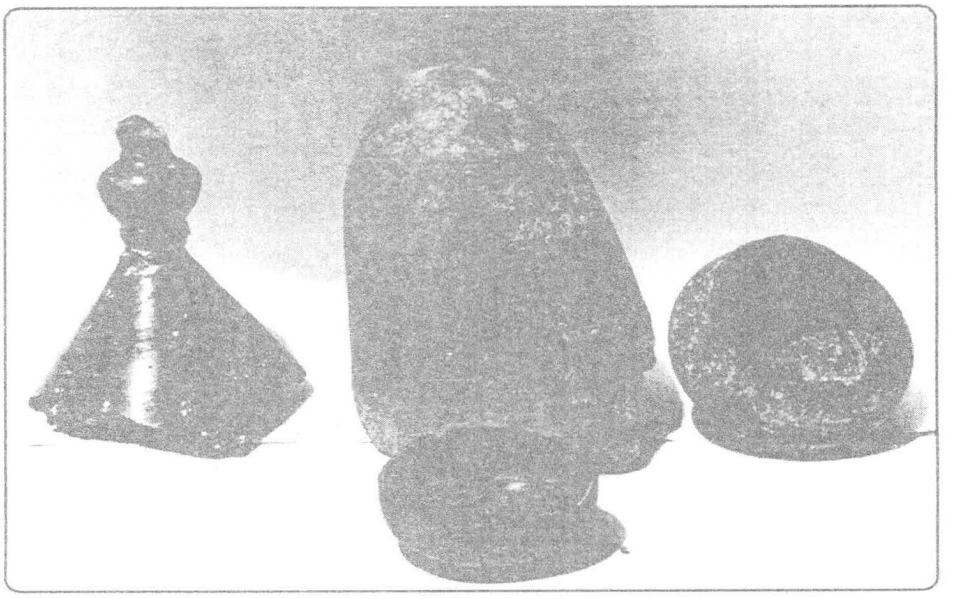
Urn Burial insitu



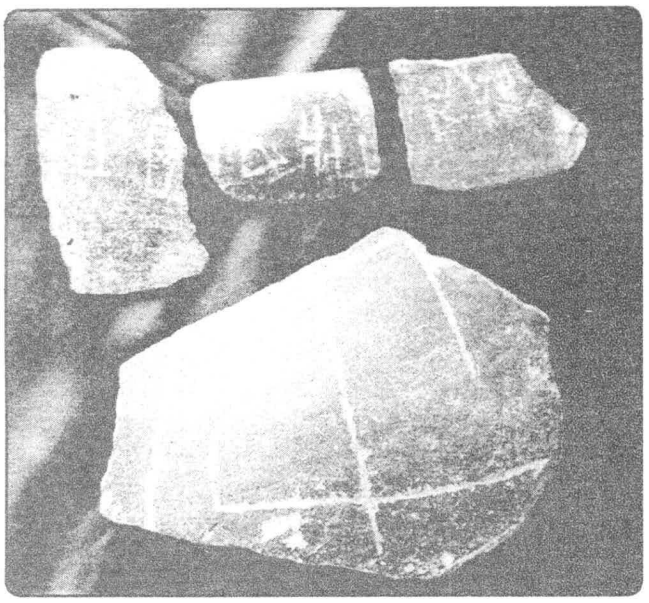
Exposing Iron Knife - Burial site



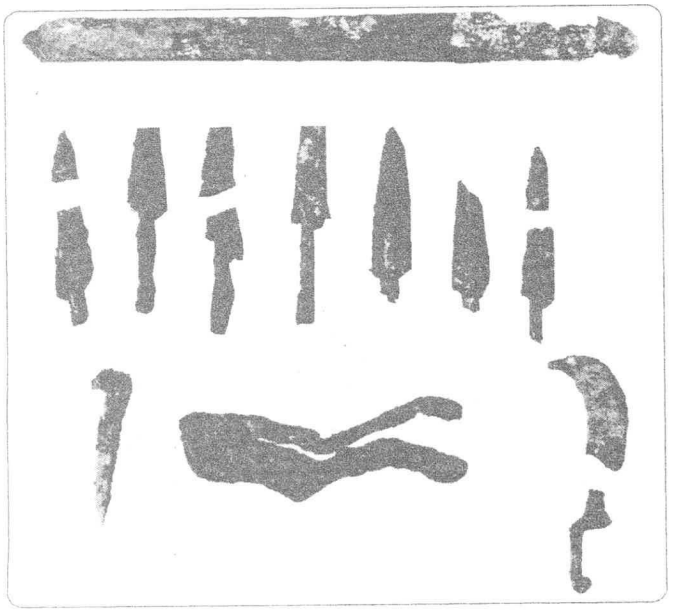
Copper Filter from the Trench



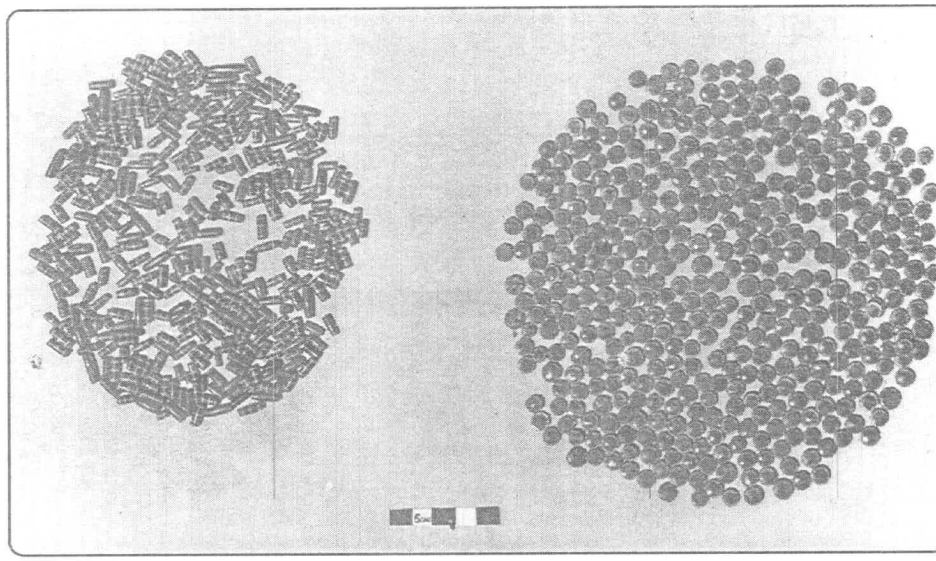
Burial Potteries



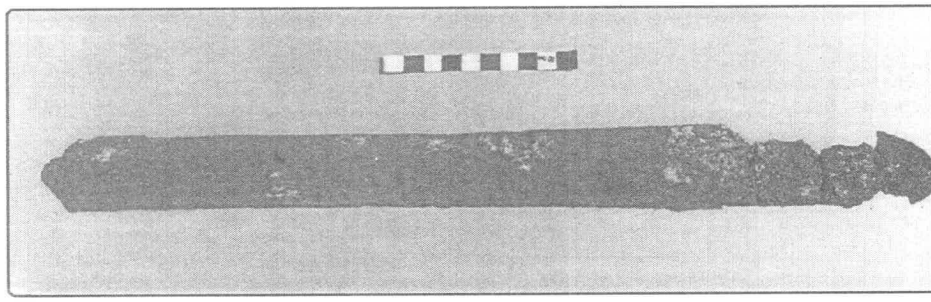
Graffiti Potsherds



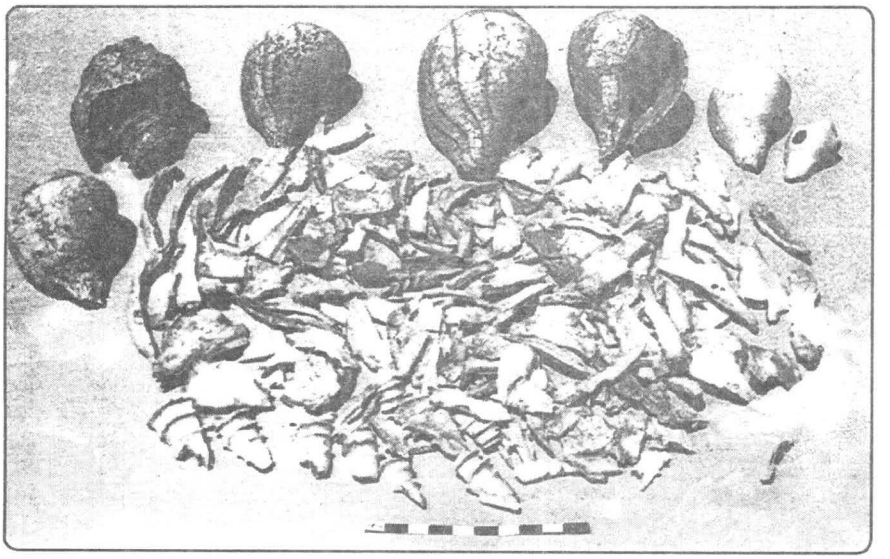
Iron Objects



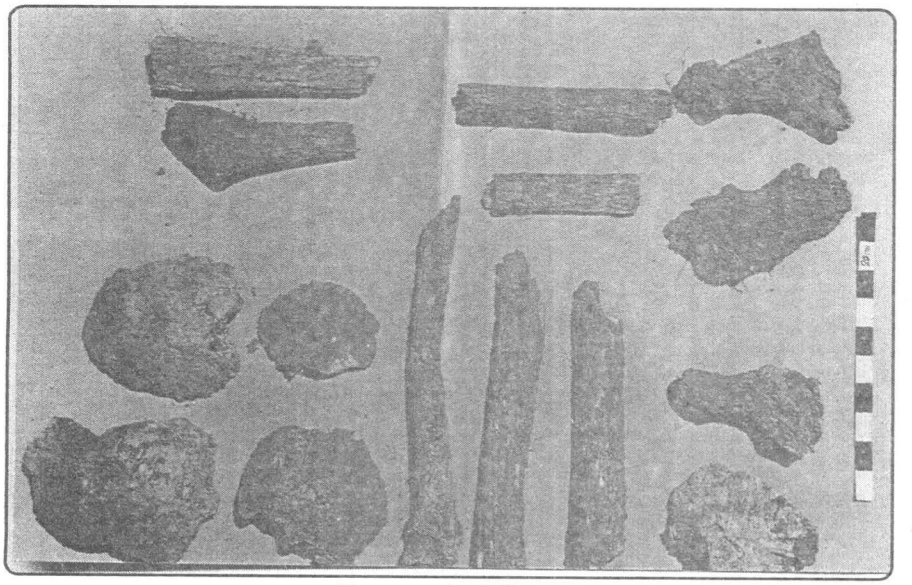
Carnelian Beads



Iron Knife



Sawed Conches



Excavated Bones

EXCAVATION AT KARUR
[1973 - 1974, 1977, 1979, 1996]

CONTENTS

1. Introduction

2. Historical Background

3. Cultural Sequence and Chronology

4. Trenches

5. Pottery

6. Antiquities

7. Conclusion

Bibliography

Photographs

INTRODUCTION

Karur is an important historical place in Tamil Nadu. Literary, Epigraphical and Numismatic evidences throw valuable light on historical information of Ancient Karur. Because of Karur is growing Industrial and Textile Town, it is very difficult to choose a vacant place for excavation. After exploration the excavation conducted in the vacant places like play grounds of High Schools in the town. Karur was excavated during the years 1973-74, 1977 - 1979 and in 1996. Totally Nine trenches were laid.



HISTORICAL BACKGROUND

Karur is situated about 77 kms from Tiruchirappalli town (Latitude 10° 581N Longitude 78° 05¹E) and is a District Headquarters. The study of Karur with historical perspective reveal that the innumerable contributions made by Karur in the socio - economic and political history of Tamil Nadu.

Karur is an ancient Historical place mentioned in the inscriptions and literature as Karur and Vanci. It is also called in other names such as *Adipuram, Karuvaippathi, Vancularanyam, Garbhapuram, Bhaskarapuram, Viracholapuram and shanmangala Kshetram.* It was also called as 'Vancimuthur' the ancient city of Vanci.

In the foreign notieces of Ptolemy it was called as 'KARURA' an inland capital of the Chera dynasty.

Karur is situated on the banks of Amaravati river known in ancient times as *Anporunai.* The river originates from Varahagiri and joins the great river Kaveri at Tirumukkudal not for away from Karur.

The antiquity of Karur region starts from megalithic age. The places in and around Karur were explored and noticed the evidences of megalithic culture. The villages like *Pugalur, Karudaiyanpalayam, Manmangalam Malaikoyilur, Aravakurichi, Andankoil, Tirumukkoodal, Kothapalayam, Vella Goundanpatti and Attur* yielded vestiges of megalithic culture.

Megalithic Urns from Andankoil, and Black and red ware pots from Pugalur are exhibited in the site museum at Karur established by the State Dapartment of Archaeology.

There are number of mounds noticed around Karur. They are called as Nattamedu and yielded Black and red ware potteries, medieval potteries, shell bangle pieces and terracotta figurines. Such mounds are noticed in some places like Manavasi, Pudukkottai, Manmangalam, Venjamankudalur, Attur, Vettamangalam, Mettu Mahadandpuram, Palaya Jayankondacholapuram and Senapiratti. Some of the areas in Kulitalai and Musiri Taluk explored by the Department of Ancient History and Archaeology, University of Madras. The excavations conducted (1962-64) at Tirukampuliyur and Alagarai near Karur shows the antiquarion value of the region.

Epigraphical Evidence:

The most important evidence is the *Arnattar malai* epigraph of Pugalur. The hill Arnattar malai is about 20kms from Karur. In the natural caverns with rock beds, bearing Brahmi inscriptions are found here. These epigraphs record the donations made to Jaina ascetics.

The main epigraph is noticed on the over hanging rock in the southern side. It records the gift of beds to a *Sramama Senkayapan of Yarrur* village by the Chera prince *Ilam kadungo*. This inscriptions is assignable to first century C.E. on palaeographical grounds mentions three generations of the Chera kings listed below;

1. *ko Adan cel Irumporai*
2. *(his son) perum kadungo and*
3. *(his son) Ilam kadungo.*

These Chera names are found in the Sangam Literature *'Pathitruppathu'*. It is therefore evident that the kings mentioned in this epigraph were rulers of the Sangam age.

Pugalur inscriptions mention such names as *Pittan, Korran, Keeran* and *Ori* which also occur in the Sangam literature. One of the epigraphs refer to a gold merchant from 'Karuvur'. As already mentioned Karur is situated near Pugalur. Pugalur inscription is an important evidence to show that the Chera kings ruled Karur as their capital and the name of the present day Karur is mentioned in the epigraph as *Karuvur* Hero stones. Two hero stone inscriptions are located in the town itself and dated to 8th century C.E. one of the hero stone is in Tamil and the other is in Vatteluttu character. The hero stone in Tamil reads *as "Ko Kaliyan magan karuvuridai tan anirai kolal erindu pattan"* i.e. the son of king Kaliyan fell in Karuvur while rescuing his cattle.

The other hero stone reads as *'Srivanci vel Adiyan'* i.e, Adiyan is the servant of Vancivel. Both these epigraphs of the 8th century C.E. mention the name of the city as Karuvur and *Vanci.*

There are no evidences to show that this area was ruled by the Chola dynasty from 8 to 10th century C.E. But an epigraphical evidence from Somur near Karur revealed that this area was ruled by Cholas.

But in 11th century C.E. this area was ruled by Sri Vira Rajendra Chola (1064 - 76) as revealed from Karur Pasupatheeswarar temple inscription. The inscription mentioned the city as *Vancimanagar* and *Vanci* alias *Karuvur.* This is also confirmed by an another epigraph of the same period found as Nerur about 10 km from

Karur. It mentioned the name of Karur as 'Karuvur alias Vanci'. During Kulothunga Chola III period Karur called as *Mudivazhangu Cholapuram*. (முடிவழங்கு சோழபுரம்)

From the epigraphical evidences it is proved that the present Karur was called as 'Karuvur and Vanci' in ancient times.



CULTURAL SEQUENCE AND CHRONOLOGY

To assess the antiquitiy of Karur, Archaeological Excavation were conducted out at Karur during the seasons 1973 - 74, 1977, 1979 and 1996.

Totally nine trenches were laid at different places of Karur Town to assess the habitational deposits and to determine their cultural sequence and chronology. Based on the study of the stratigraphy, pottery types and other minor antiquities. Four successive occupational periods are determined. The following chronology of the site is fixed with the findings of KRR-6 excavation results.

Period IV

4th Century C.E. to 15th Century C.E	Dull red ware, Coarse red ware

Period III

3rd Century C.E 4th Century A.C.E	Russet coated ware

Period II

1st Century C.E to 2nd Century C.E	Mat designed pottery Inscribed potsherds Amphorae pieces, Rouletted ware, Red slipped ware, Black and Red ware

Period I

2nd Century B.C.E to 1st Century B.C.E	Red ware, Black and Red ware

Lay - out of Trenches:

1. KRR 1 - Jayaprakash Elementary School, 1973 - 74
2. KRR 2 - Jayaprakash Elementary School, 1973 - 74
3. KRR 3 - C.S.I High School play ground, 1977
4. KRR 4 - Sub Collector's Office Premises, (Open space), 1977
5. KRR 5 - Boys Higher Secondary School Hostel, 1979
6. KRR 6 - Girls Higher Secondary School, 1979
7. KRR 7 - Industrial Training Institute Hostel, 1996
8. KRR 8 - Amaravathi River Bed, 1996
9. KRR 9 - Vacant place in between Mariamman temple and Jayaprakash Elementary School, 1996.



CUTTINGS

KRR - 1 - (1973 - 1974)

Trench KRR - 1 was laid at jayaprakash Elementary School, Karur. The measurement of the trench was 4 X 4 mts. Generally the soil was loose and yielded brickbats, bangle pieces and other antiquities. Two copper coins occurred at a depth 70 cms. One of them belong to the British period and another coin was not able to decipered. A British period 1/2 Anna coin was discovered at a depth of 1.15 mts. At a depth of 1.95 mts. a large amount of brickbats were unearthed. The bricks were scattered throughout the trench. It is persumed that there may be an ancient construction existed in this level. Carbon was also collected at a depth of 1.90 mts. in between the pegs III - IV. The maximum depth reached was 2.20 mts. in between 0 - II, 0' - II'. At a depth of 2.90 mts. in between I - II a brick structure with one course of burnt bricks was unearthed. The binding medium was clay. The brick structure is seen in the Northern section. The size of the brick is 47 cm X 32 cm X 9 cm.

An inscribed potsherd with Brahmi script was unearthed at a depth of 3.18 mts. in between III - IV. Only two letters *E* and *tha* is inscribed on the black and red ware. Potsherds with graffiti was unearthed at the depth of 3.95 mts. in between 0 - II.

The soil was like river sand at the depth of 3.85 to 4.20 mts. The maximum depth reached in this trench was upto 4.50 mts.

KRR - 2 - (1973 - 1974):

KRR - 2 is the extension of KRR - 1 in the Western section to know the alignments and the method of construction of brick structure exposed in the trench KRR - 1. Drainage channel running east - west direction was noticed near the brick structure at a depth of 2.40 mts. On either side of the channel bricks were paved in erected position. The channel was coated with lime and quartz pieces of stores.

Three phases of constructional activities were noticed in the excavation KRR - 1 & KRR - 2.

KRR - 3 - (1977):

The trench KRR-3 was laid at C.S.I High School playground situated on the western side of Karur-Pugalur road. The trench measuring to the extent of 4 X 4 mts. Generally the soil is loose. A coin was obtained at a depth of 52 cm. Though it is highly corroded, after chemical cleaning it was identified as a silver Roman coin. The name of the king could not be identified. Black and red ware potsherds, occur from a depth of 70 cm to 90 cm.

Soil is hard and reddish in colour at depth of 1 mt. in between Pegs II - 0; Between III - IV river sand occurred at a depth of 1.08 mts. Black and red ware, Blackware, Redware sherd were occuring in this level. Excavation continued in between 0-II-0-IV. Soil is hard, red in colour mixed with gravel and pebble. Potsherds are less in number. The cultural deposit stopped at a depth of 1.51 mts. Natural soil made of Lateriate formation occurred at a depth 1.51 mts.

KRR - 4 - (1977) :

KRR - 4 was laid at the open space available in Sub-Collector's Office, Karur. The above site is situated very near and northern side of the Siva temple. This place is an elevated place compared to the surrounding places. The excavation revealed that this place is a disturbed one. Because the early level show black and red ware, rouletted ware and other pottery. At a depth of 1.03 mts. some brick bats appeared in between 0 - I. At a depth of 1.56 mts. no antiquity is available. The soil is loose and mixed with gravel. Brick bats, broken stone pieces were also available. At a depth of 3 mts. stone pieces appeared in between 0 - IV. The alignment of undressed stone pieces clearly shows that this might be the part of a moat wall surrounded the temple.

In order to know the continuation of the stone structure Eastern and Southern and Northern side of the trench was further extended.

KRR - 5 - (1979) :

KRR 5 was laid at Boy's Higher Secondary School hostel premises. Generally the soil was loose and yielded antiquities. At a depth 1.70 mts. some broken bricks were noticed in the corner of western section in between 0-II. The bricks were left out and the remaining portion was excavated to find out the continuity of the birck structure. At a depth of 1.86 mts. a layer consists of clay was noticed. The average thickness was about 15 cm. and this layer yielded Black and red ware, Red slipped ware and Russet coated ware sherds. Below this level broken pieces of quartz stone was paved for about a thickness of 35 cm. The above sediments show that the same was used as foundation for a building. To know about alignment of structure KRR-5 extended in the Northern section. At a

depth 55 cm. three pot sherds of Kaolin ware were found. The above sherds are significant find to reveal the North Indian contact. Natural soil was reached at a depth of 2.45 mts.

KRR - 6 - (1979) :

KRR-6 was laid at the vacant place in the Girls Higher Secondary School, Karur. The measurement of the trench was 3X2 mts. At a depth of 1mt. construction made of old bricks was noticed. The mode of construction revealed that it was of later period. Inscribed potsherds obtained at a depth of 1.75 mts. Amphorae pieces obtained at a depth of 1.90 mts. Rouletted potsherd obtained at a depth of 2.38 mts. This trench is most important because it yielded good number of antiquities like inscribed Potsherds, Amphorae pieces, Potsherds with graffiti rouletted potsherds and mat designed pottery pieces.

The loose soil was mixed with river sand had appeared at a depth of 5.23 mts.

KRR-7(1) - (1996):

KRR-7 was laid in the Industrial Training Institute Students Hostel. The measurement of this trench was 5 X 5 mts. lying in East - West direction. The actual digging was carried out in the 5 X 4 mts. The natural soil occurred at a depth of 2.85 mts. and excavation revealed 4 layers. The natural soil is hard, laterite and red in colour. No pottery is available in the natural soil. From Humus to Second layer the soil is disturbed in four sides. In the western section pit burial starts and gone up to depth of 3.30 mts. The breadth of the pit is 70 cm. The pit yielded Black and red ware, Red ware, grooved tiles (Sangam period), animal bones, inscribed potsherds and graffiti potsherds.

A brick structure was noticed at the layer (2) in between 0'-II, and at a depth of 1.25 mts. The rectangular shaped structure measured 117 cm. (West), 143 cm. (North) and 143 cm. (South). The structure starts from the first layer and cut the second layer and ends here. Brick structure contains 10 courses of bricks and the eastern side have 9 courses of bricks. The size of bricks are 36 X 18 X 6 cm. In the upper side of the brick structure grooved tiles, potsherds and bone pieces occur. From the findings it may infer that the brick structure might have used as a dyeing vat or water storage tank.

KRR-8 (2) - (1996):

In recent years many antiquites like beads, semi precious stone beads and coins of different periods have been unearthed in the Amaravati river sand by the local people. To assess the importance of the river bed excavation conducted in a grove near the Amaravati river. No important antiquity found in the excavation.

KRR - 9 (3) - (1996):

The excavation conducted with vacant land inbetween Mariamman temple and Jayaprakash Elementary School. The natural soil reached at a depth of 3.90 mts. At a depth of 1.65 mts. between 0 - V,0' - V' floor of a house made of brickbats was noticed. Grooved tiles, Bone pieces, and potsherd with graffiti marks, inscribed potsherds obtained. Antiquities like potsherds with graffiti marks, inscribed potsherds, iron objects, bone pieces, glass pieces, Terracotta objects like hip hops, perforated potsherds, spindle whorls, beads were obtained.



POTTERY

The Karur excavation yielded Roman potteries like Arretine ware, Rouletted ware, Amphorae pieces, buff ware, Incised ware, Black and Red ware, Russet coated ware and inscribed potsherds.

Amphorae Pieces :

All trenches yielded Amphorae pieces, but KRR-6 yielded a good number of pieces. The sherds are generally pink in colour with half slip. Vasavasamudram excavation revealed an amphorae neck with double handle which is also in the same colour. Wheeler remarked about Arikamedu Amphorae as stratigraphically it would appear that the arrival of Amphorae continued to be imported or at least used for a considerable time after the introduction of Arretine ware has ceased.

Arretine Ware :

Arretine ware belongs to a class of ware known as 'terra sigillata' (Stamped Pottery'.) from the fact that some of it is decorated by being pressed into a stamped mould. Terra sigillata belongs to the Eastern mediterranean area especially to the envirous of the Aegean sea. It seems to emerge in the 2nd c. B.C.E and its derivatives survived in the near east windely into the Byzatine period as late as the 7th century C.E.

At Arikkamedu this ware produced in Italy at Arezzo, Puteoli and else where and has been named as 'Arretine' from the Latin name of Arezzo (Arretium).

The excavation revealed one or two sherds of this type. Two sherds were collected from the surface near the trench KRR - 4.

Rouletted Ware:

A characteristic pottery type is a dish sometimes more than 30 cms. in diameter with an incurred and beaked in which usually has a facetted edge. The flat interior decorated with two occasionally three concentric handle of rouletted pattern.

This ware was carefully potted on a quick wheel from a fish well levigated clay. Which burned grey or more often, grey is pink the colour being due to reducing condition under which the pot was fired. The rouletting also shows a variety of forms conducting of minute triangles, diamonds or parallelogram edges or uprights, ovals or dots.

Rouletted potsherds obtained from all the trenches one or two pieces imitated variety was also collected during the excavation.

Black and Red Ware & Russet Coated Ware :

The excavation yielded large number of Black and red ware and Russet coated ware with graffiti marks. In the KRR - 6 Russet coated ware obtained in large number.

Buff Ware (Kaolin Ware) :

Three potsherds of Buff ware with white colour was collected from KRR.5. These pot sherds reveal the contact of Rome with

Karur during 1st century C.E. This kind of ware also collected in the excavations conducted in Andhra Pradesh.

Incised Ware (Mat Designed Pottery) :

This kind of pottery ware collected from the trench KRR - 6. This pottery is pink in colour with thin section. The upper surface shows mat impression. This kinds of pottery was also collected from Arikkamedu excavation and dated to mid or late 1st century C.E. (Ancient India No: 2 Page 50). same kind of Potsherds were also collected from Teriruveli and Alagankulam excavation.



INSCRIBED POTSHERDS

In Tamil Nadu the excavations conducted in the following places like Uraiyur, Korkai, Kodumanal, Alagarai, Kancipuram, Vallam, Alagankulam, Teriruveli, Maligaimedu have yielded inscriped potsherds which are all of historical value. The Karur excavations have also yielded good number of inscribed potsherds.

One Red ware sherd bearing the legend *'catan'* was found from KRR - 6. The Charaters of this inscription is similar in to Pugalur inscription. Other two more sherds have been collected from this trench of which one has the reading of *ka ti* and other. With four letters *IRKUP* at a depth of 1.85 mts. and 2.75 mts. respectively in the same trench.

At KRR - 1 a sherd of Black and red ware with just one letter *La* has been found at a depth of 3.85 mts.

In addition to the above inscriptions three more inscribed sherds have been collected from the surface of them one is more interesting, which has the inscription reading 'Ku ra kal' meaning 'kuru agal' that is little cup. Similar potsherds with inscription *'agal'* were found at Kodumanal excavation.

The excavation conducted in the year 1996 had yielded seven inscribed potsherds. All of them have been collected from KRR - 7 in the layer which is assignable to Sangam age on the basis of the occurrence of Black and red ware and other associated findings. Of

these two inscriptions are very important. One is written on a big pot which seams to be a broken Urn. The script is noticed on the shoulder of the pot, four letters are visible of which first line is unfortunately broken. The other letters are as follows *KATI YATA*, the meaning of which is not understandable.

The second one is written on Black ware bowl. The legend has 12 letters that are as follows.

(Ra) Ya ti ya y ma raiya Ya1 pa

This sherd is recovered at a depth of 1.05 mts. while the former one was found at 3.30 mts. depth. These two sherds along with the other inscribed sherds have been collected from a pit which starts from layer that is assignable to Sangam period.



BEADS

The collection of beads from Karur excavation display noteworthy characteristic features.

The total number of beads found in the excavation are 150 which included different materials like terracotta, glass, agate, shell, paste, stone, copper and steatite.

Generally the beads are biconical, spherical, cylindrical, lubulag, lug-collared, barrel and roosari shaped were found in the excavation. The long collared and Rosary shaped are the important type of beads found at Karur.



பயன்படுத்தப்பட்ட நூல்கள்

1. இரா. நாகசாமி, - கருவூர் - வஞ்சி - தொல்லியல் துறை 1979.
2. இரா. நாகசாமி, - கல்வெட்டு ஓர் அறிமுகம் - 1973.
3. இரா. நாகசாமி, - கல்வெட்டு - 1972.
4. பெ. ராமலிங்கம், - கருவூரே வஞ்சி - 1977.
5. இராசசேகர தங்கமணி - கரூரார் வரலாறு ஓர் அறிமுகம் - 1986.
6. இராசசேகர தங்கமணி - கருவூரும் கன்னித்தமிழும் - 1982.
7. நடன. காசிநாதன், - கொங்கு நாட்டுக் காசுகள் - ஆய்வுத்தேன் - 1973.
8. நடன. காசிநாதன், - தமிழர் காசு இயல் - உலகத் தமிழாராய்ச்சி நிறுவனம் - 1995.
9. கொடுமுடி ச. சண்முகம், - ஆர்நாட்டாமலை - ஆய்வுத்தேன் - 1973.
10. கரூர் ஆனிலையப்பர் திருக்கோயில் குடநீராட்டு விழாமலர் 3.2.1974.
    இரா. நாகசாமி - வரலாற்றில் கரூர்
    நடன. காசிநாதன் - கல்வெட்டுகளில் கரூர்
    ச. ஹரிஹரன் - கரூர்
11. சதாசிவம் - சேரநாடும் செந்தமிழும் - 1949.
12. கிருஷ்ணசாமி ஐயங்கார் - சேரன் வஞ்சி - 1956.

13. கோவைக்கிழார் - கொங்குநாட்டு வரலாறு - 1972.

14. "கொங்கு இதழ்கள்"

கொடியன் வேங்கலநாடு மே 1971.

தெய்வசிகாமணிக்கவுண்டர் ஆர்நாட்டாமலை - சூலை 1971.

கொடுமுடி ச. சண்முகம், சுக்காலியூர் குகைப்படுக்கைகள் - மே 1972

கருவூர் கோட்டை, ஆகஸ்ட் 1972.

பொன்னுசாமி - வஞ்சிக்குள் கரூர், செப்டம்பர் 1973.

எ. பார்த்தசாரதி - சோமூர் கல்வெட்டு, செப்டம்பர் 1973.

மா. சந்திரமூர்த்தி - ஐயர்மலைக் கல்வெட்டு, செப்டம்பர் 1973.

ஹெச். சர்க்கார் - தாந்தோணி குடைவரைக்கோயில், ஏப்ரல் 1974.

153, 2000.

15. கல்வெட்டு இதழ்கள் (தொல்லியல் துறை வெளியீடு)

ஐராவதம் மகாதேவன் - சங்க காலக் கல்வெட்டும் என் நினைவுகளும் இதழ் - 1

பேட்டை வாய்த்தலை, இதழ் - 10

ஐம்பெருங்குழு, இதழ் - 10

கி. சீதரன் - மாயனூர் மதுக்கரை, இதழ் - 14

ஆ. பத்மாவதி - கொல்லிப்புறை காசு ஓர் ஆய்வு, இதழ் - 53.

16. ஐராவதம் மகாதேவன், சங்கரராமன் - கரூரின் கணையாழி கூறும் கதை ஆவணம் 13, 181 - 183 - 2002.

17. இரா. நாகசாமி - கல்வெட்டியல் (தொல்லெழுத்தியலும் கல்வெட்டியலும்), தொல்லியல் துறை, 1972.

18. கே.வி. இராமன் - கரூர் நாணயங்களும் அணிகலன்களும், தினமலர் மே 3, சென்னை 1994.

19. சங்கரன் ராமன் - கரூர் முத்திரை பொன்மோதிரம் ஆவணம் 11. 153, 2000

20. அ. சீதாராமன் - தமிழகத் தொல்லியல் சான்றுகள் தொகுதி, (1994) தொகுதி 2 (2002)

21. கி. ஸ்ரீதரன் மற்றும் கோ. அர்ச்சுனன் - கரூரும் அகழ்வைப்பகமும் தொல்லியல் துறை 1992.

22. தி. நா. சுப்ரமணியன் - பண்டை தமிழ் எழுத்துக்கள் - உலகத் தமிழாராய்ச்சி நிறுவனம் 1996.

23. மயிலை சீனி. வேங்கடசுவாமி - சங்க காலத்து பிராமி கல்வெட்டுகள் தென்னிந்திய சைவ சித்தாந்த வெளியீடு 1991.

24. தி. ஸ்ரீ. ஸ்ரீதர் - ஆண்டிப்பட்டி அகழாய்வு அறிக்கை, தொல்லியல் துறை 2005.

25. கா. ராஜன் - தொல்லியல் நோக்கில் சங்க காலம் - உலகத் தமிழாராய்ச்சி நிறுவனம் 2004.



References

1. Abdul Majeed, A. Ed. Alagankulam - A Preliminary Report, Chennai, Tamil Nadu. State Department of Archaeology, 1992.
2. Govindaraj, R. Evolution of Script in Tamil Nadu - Tamil Nadu Archaeological Society - Spcial Issue No. 1, 1994.
3. Gurumoorthy, S. Deciphering the Indus Script from Graffiti on Ancient Indian Pottery, University of Madras, 1999.
4. Krishnamoorthy, R. Sangam Age Tamil Coins, Garnet Publications Chennai.
5. Krishnan, K.G. Cera Kings of the Pugalur Inscription - Studies in South Indian History and Epigraphy, Newera, 1981.
6. Mahadevan, Iravatham. Inscritpions of Sangam Age, The Hindu 15.3.1965.
7. Mahalingam T.V. Early South Indian Palaeography, University of Madras, 1967.
8. Inscribed Potsherds from Alagarai and Uraiyur Seminar on Inscriptions, 1966 Ed. R. Nagaswamy.
9. Mahalingam, T.V. Report on the excavations in the Lower Kaveri Valley (Thirukkampuliyur and Alagarai 1962 - 1984. University of Madras 1970.)

10. Nagaswamy, R. Roman Sites in Tamil Nadu Recent Discoveries Madhu - Recent Researches in Indian Archaeology Art History Shri M.N. Deshpande Commemoration Volume, 1981.

11. Alagankulam An Indo - Roman Trading Port in Indian Archacological Heritage - Shri K. V. Soundararajan Felic : Volume & Ed. C. Margabandu, 1991.

12. Roman Karur A peep into Tamils past, Brahad Prakashan, 1995.

13. Archaic Tamil Inscription from Excavations, Journal of the Epigraphical Society of India, Vol. 23, 1997.

14. Paneerselvam, R. An Important Brahmi Tamil Inscriptions Reconstruction of the Geneology of the Chera Kings Seminar on Tamil Studies Malaysia - 1968.

15. Sesha Iyear, K.G. Cera Kings of the Sangam Period London: Luzac & Co., 1937.

16. (Shanmugam Inscribed Sherds and Graffiti) Excavation at Uraiyur, Ed. K.V. Raman.

17. Sridhar, T.S. Excavations of Archaeological Sites in Tamil Nadu State Department of Archaeology, 2005.

18. Sridhar, T.S. Alagamkulam Roman Port City of Tamil Nadu State Department of Archaeology, 2005.



CONCLUSION

Scholars have different opinion about the capital of Sangam Age Chera King whether it is in Kerala or present Karur in Tamilnadu.

The occurance of coins, inscribed potsherds from the excavation reveals that Kurur was an ancient city and trade centre. From the epigraphical. Archaeological and numismatic evidences it is confirmed that the present Karur in Tamilnadu was the Capital of the Sangam period Chera dynasty excavation.

The excavation results have thrown valuable light on the identification of this place as an important trade centre. The important findings are several potsherds with Tamil-Brahmi inscriptions assignable to the beginning of the common era. The inscribed potsherds were found along with Roman Amphorae and rouletted ware of Mediterranean origin.

The Site Museums are set up in locations where excavations were carried out in archaeologically significant sites. In addition to one Underwater Archaeology Museum located at Poompuhar, there are fourteen District Archaeological Site Museums coming under the control of this Department. The Museum is opened mainly to create archaeological and cultural awareness among the public. The excavated antiquities that are available in that area are exhibited in the Site Museum.

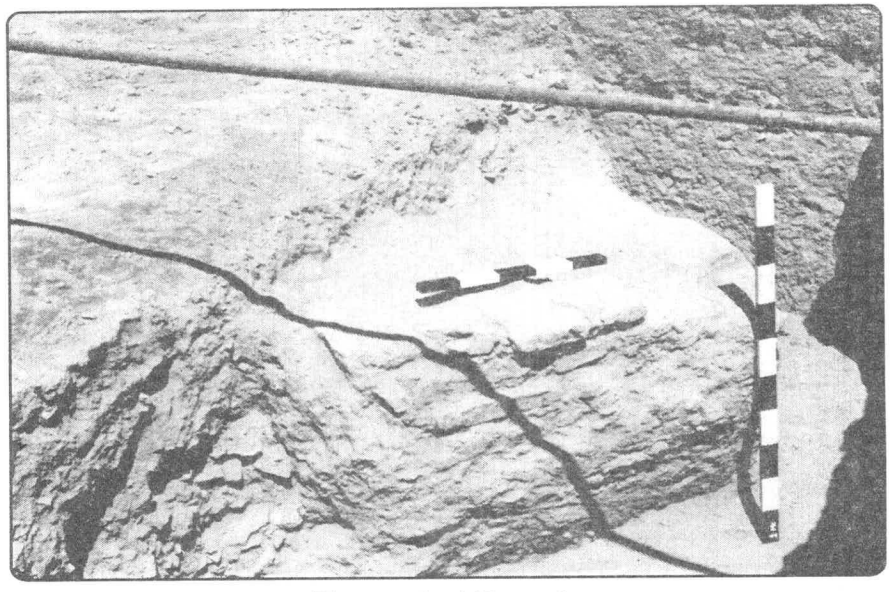
The remains of brick structure were found. The artefacts, belonging to 1st century BCE to 19th century CE, are displayed in

this Museum. The inscribed gold and silver rings found at Amaravathi river bed, punch marked coins of 5th century BCE are other important finds.

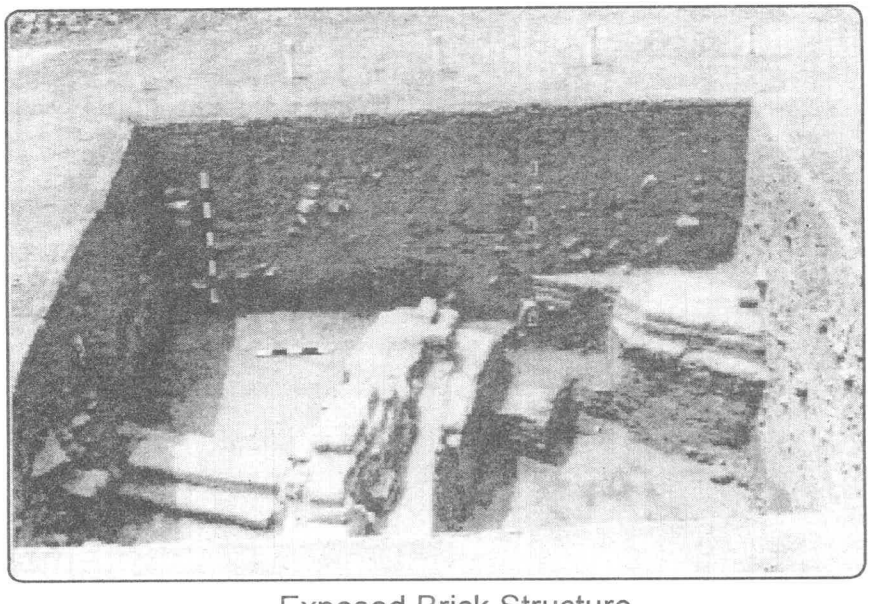
Antiquities collected from exploration as well as excavation are on display. Hero stone sculptures, Roman coin, Sangam Age Chera, Chola and Pandya coins, Pallava coin, Later Pandya coin, Rajaraja-I coin, Nayak coin, Palm leaf manuscripts, Beads, Copper plates and Terracotta models.



Under the guidance of then Director of Archaeology
Dr. R. Nagaswamy.
Thiruvalargal. A. Abdul Majeed, M. Chandramoorthy, K. Sridaran,
D. Tulasiraman, S. Selvaraj, K.S. Sampath, R. Selvaraj,
V. Vedhachalam,
S. Krishnamoorthy, S. Ramachandran, R. Krishnamoorthy
M.T. Sridaran, N. Balakrishan.

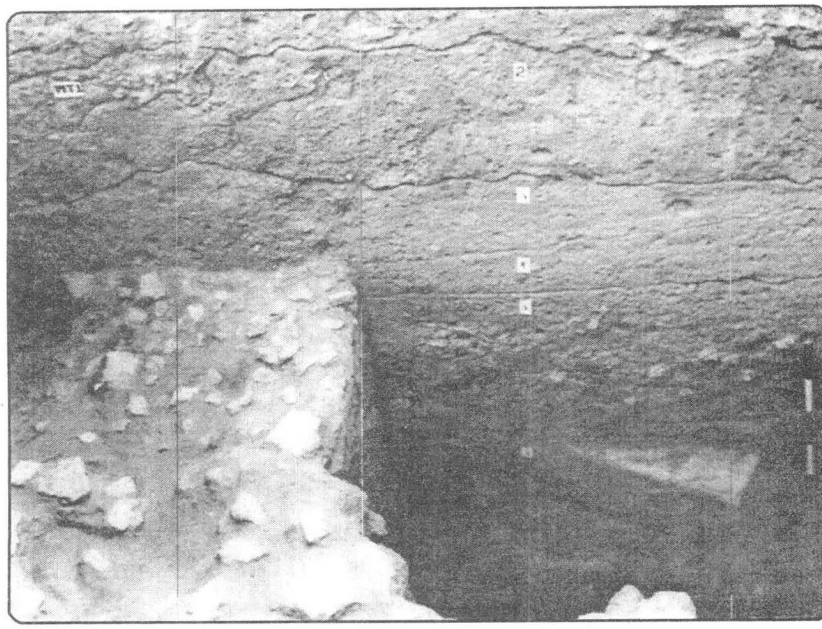


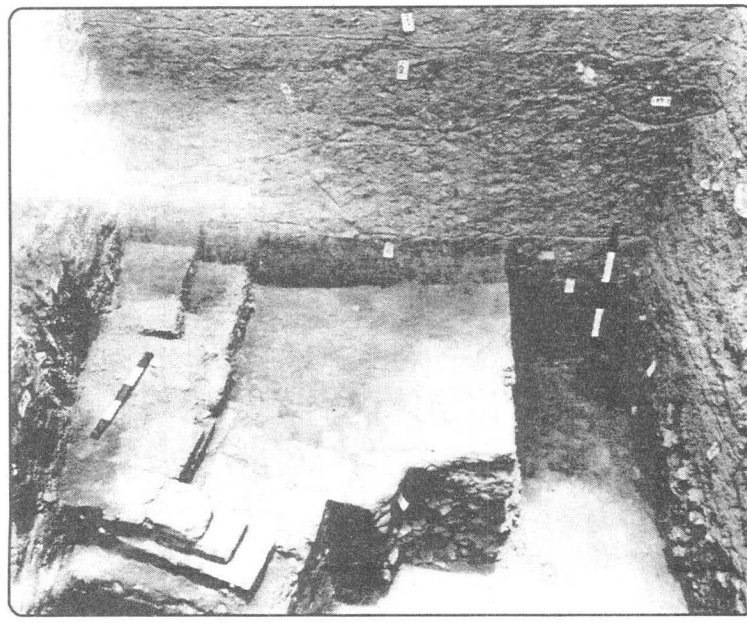
Excavated Trench

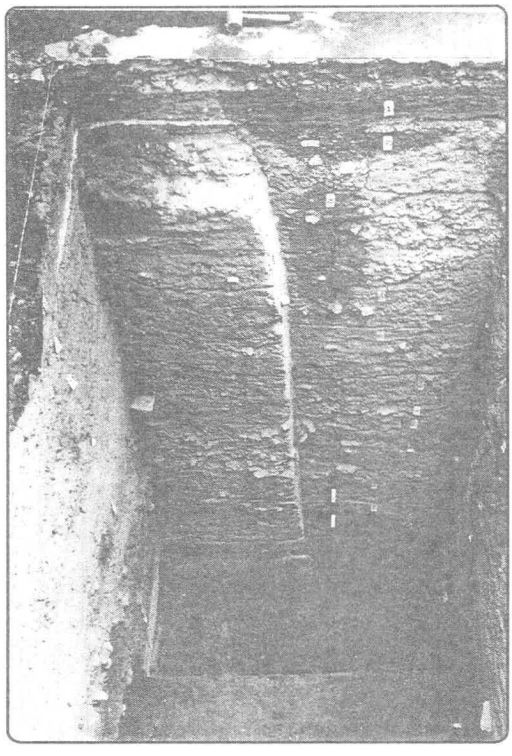


Exposed Brick Structure

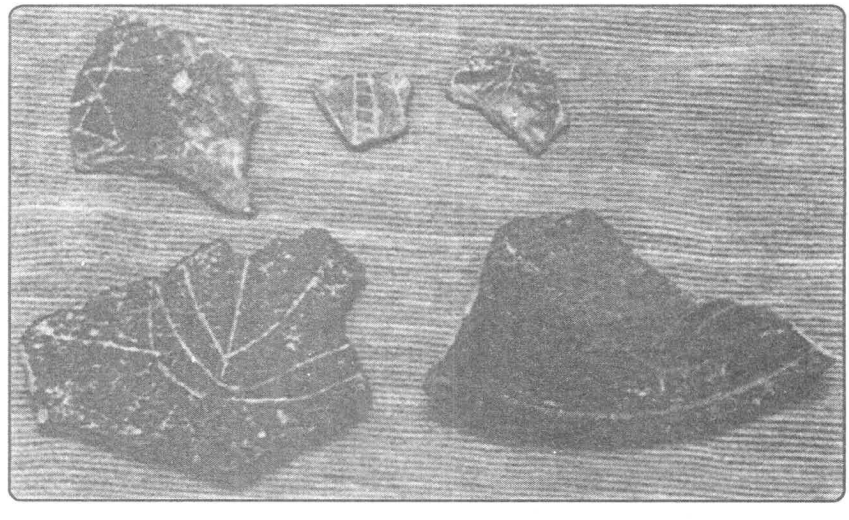
Excavated View of the Floor & Brick Structure



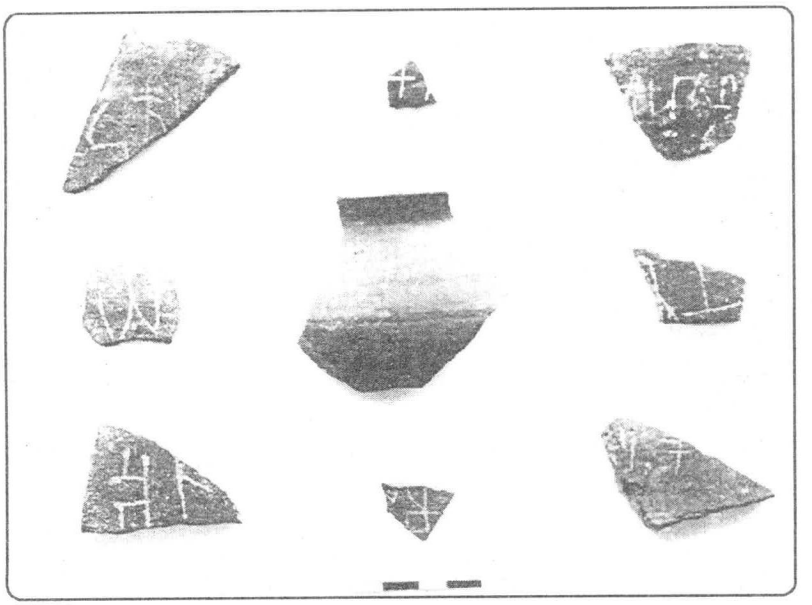




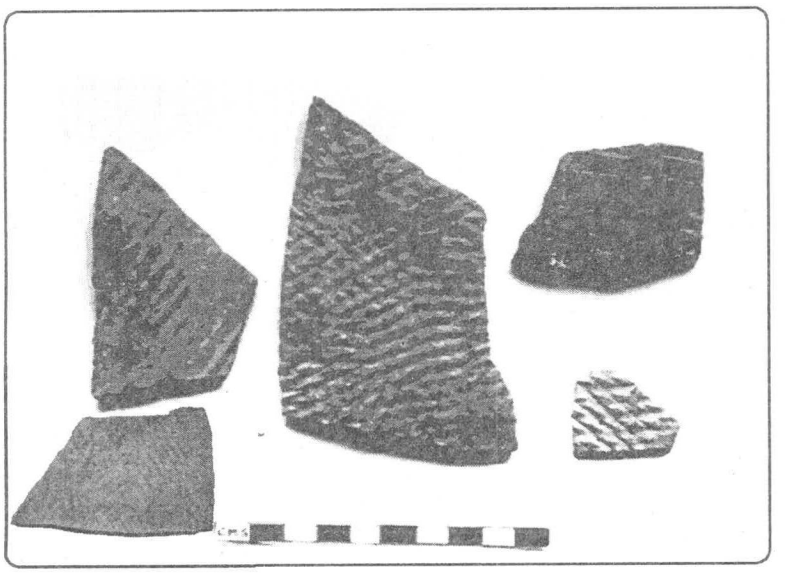
Trench Showing the Layers



Graffiti Potsherds



Inscribed Potsherds



Mat designed Pottery



Gold Ring with Figures

EXCAVATION AT POOMPUHAR

CONTENTS

1. Location
2. History of Poompuhar
3. Places in and Around Poompuhar
4. Excavations
5. Under Sea Exploration / Excavation
6. Potteries & Antiquities
7. Conclusion

Photoghrphs.

LOCATION

Poompuhar is in Sirkali Taluk of Nagapattinam District. It is also known as Kaveripoompattinam. Tourists have to alight at Myiladuthurai Junction, to proceed to Poompuhar by road, visitors from Chennai by train have to get down at Sirkali. Poompuhar is connected to Myiladuthurai as well as Sirkali by road. The distance from Poompuhar to Myiladuthurai is 24 kms. and to Sirkali, 21 kms.

Tourists from Chennai to Poompuhar by private carriers can take the route via Tindivanam, Pondycherry, Cuddalore and Sirkali. Those who come from Madurai, Ramanathapuram and Tirunelveli may proceed via Melur, Tiruppathur, Karaikudi, Pattukottai, Thiruthuraipoondi, Nagapattinam, Karaikal, Tharangampadi and Akkur. They can also come via Pudukottai, Thanjavur and Myiladuthurai.



HISTORY OF POOMPUHAR

Poompuhar, the celebrated capital and port city of the illustrious Chola of sangam age is said to have been situated on the confluence of the river Kaveri with the Bay of Bengal. It is also said that it extended upto four *Katham* (approximately 1 katham = 4 kms.) on both the banks of river Kaveri. This city seems to have been in existence even from 5th-4th century BCE. as the carbon date of a log of wood recovered from Poompuhar clearly shows. An inscription from Barhut, datable to 2nd century BCE. also states that a Buddhist nun of this city known as *Soma* had donated a stone slab for an enclosure of a stupa. *Kakandi* is referred to in Manimekalai as one of the names of Kaviripoompattinam. It is described that when Parasurama was destroying the race of Kshatriyas, the then Chola King who was also a Kshatriya, *Kandan* by name had entrusted the care of city Kaveripattinam to *Kakandan*, a son of *Ganika* and went to forest.

Poompuhar was known by several names in ancient period viz. Puhar, Kaveripattinam, Kakhandi, Champapathi, Colapattinam and Kaberis Emporium. Sangam Literature such as *Ahananuru, Puranannuru, Silappathikaram*, *Manimekalai*, the prakrit works like *Milindapana, Abhidammavataram, Buddhavamsattakatha,* Buddhist Jataka tales and the foreign notices like Geography of Ptolemy, the anonymous *Periplus Mari Erthriya,* the work of *Pliny* and few ancient inscriptions shed valuable light on the nature and function of this vast city.

According to Manimekalai the city was once submerged under the sea. But from the fact that the same text gives a good description of the city, it must be concluded that either the entire city was submerged and rebuilt after the sea had receded or only a part of the city was engulfed by the sea. The latter seems to be more probable. So it must be taken that this city lost its importance through the centuries.

Buddhist Sources

All the prakrit references to this city come from Buddhist sources. The celebrated book *Milindapana* dealing with the questions of Miandar, and the answers of Bikku Nagasena, refers to this city as Kolapattina, one of the best known ports of the time.

The *Milindapana* is ascribed to the beginning of the Common era. In a Buddhist Jataka, a certain Akitti is said to have lived in a garden near Kaveripattinam.

The Prakrit texts *Abhidhammavatara* and *Buddhavamsattakatha*, written at Kaveripattinam, by about 400 CE. attest to the flourishing nature of the city port. The author of the above works, Buddhadatta by name, was a great grammarian and an accomplished poet of his time, and has written another prakrit text called *Vinayaviniccaya*. From the last mentioned work it is learnt that Buddhadatta spent sometime at Bhutamangala in the Chola rashtra, when Acchuta, Vikkanta of Kalabhrakula was ruling the Chola country.

Accut accuta vikkante Kalabhrakulanandane
Mahin samanusasante arabdho ca samapito

The Kalabhras seem to have captured the Chola country in the 5th Century CE. and were thrown out in the 6th Century, by the rising powers of the Pallavas in the North and the Pandyas in the South.

Acchuta Vikkanta seems to have been a great ruler, extending his support to Buddhism. From the description of Kaveripattinam, given in *Abhidhammavatara* and *Budhavamsattakatha,* it is learnt that it was still in a flourishing state in 400 CE. though the trade with the Roman country has touched a low mark, following the fall of the Roman empire.

In both the works, Buddhadatta gives identical description of Kaveripattinam.

Nanaratna sampunne vividhapana sangate
Kaveripattane ramme nanaramopsobhite
Kalasikharakara pasada patimandite

"Kaveripattinam was inhabited by men and women of noble descent. The city was complete in all aspects and presented a beautiful appearance. There were many bazaars, selling various goods.

Precious gems of various types were available in plenty. The city was full of lofty and palatial mansions, beautiful with entrance towers.

There were many groves, pleasing to the eyes. There was the crystal like Kaveri and the cool sea, adding to the beauty of the city.

A certain noble, named Kanahdasa, built a beautiful vihara there with enclosures and elegant turrets."

Buddhadatta states that he wrote the *Abhidhammavatara* and *Buddhavamsattakatha,* while residing at a cool and pleasant part of the *vihara* which was very ancient.

It is evident that a great Buddha vihara was erected at Kaveripattinam, by about 400 CE.

Manimekalai refers to *Indra viharam* elu which is taken to mean seven *viharas* built by Indra.

Buddhadatta does not refer to foreign traders in Kaveripattinam. As mentioned earlier the trade with Rome ceased to be effective and no Roman coins have been found in South India which could be dated after 3rd century CE. But Manimekalai refers to the Yavanas. It is therefore evident that Manimekalai should be ascribed to a period, when Kaverippattinam was still trading with Rome. Buddhadatta's works indicate that Kaverippattinam was also a great centre of Prakrit learning.

References from Sangam works

Poompuhar is said to have been divided into three major divisions, viz., *Maruvurppakkam, Pattinappakkam* and *Nalangadi.* Maruvurppakkam was situated on the sea shore, Pattinappakkam was said to have located on the western side while Nalangadi was in between Maruvurppakkam and Pattinapakkam.

Settlements of foreign merchants who used ships for their commercial purpose, streets of vendors who were selling spices,

perfumes and flowers, habitation of weavers who were manufacturing cloths by silk, hair and cotton, wide streets of those who sold precious stones, streets of shops which sold grains, artisans, musicians, artists, sculptors and fishermen were all located in Maruvurppakkam.

In Pattinappakkam, the temples dedicated to Siva, Arumugan, Vishnu, Baladeva, the palace building and the adjoining big streets where the residences of royal personages, military officials, wealthy merchants, cultivators and the performers of classical arts were situated.

Since Nalangadi was located in a natural grove, in between Maruvurppakkam and Pattinappakkam it was easily accessible both by the residents of these two divisions.

In addition to these three major divisions, there were number of groves, gardens like *Ilavanthikaicholai, Uyyavanam, Kaveravanam, Champapativanam* and *Uvavanam* and *Mamrams* such as *Veilidaimanram, Ilanjimanram, Pavaimanram, Nedungalmantram.* The war trophics like Toranavayil (Gateway) and Muthuppandal (Canopy Pearls), brought from various other regions were also placed in prominent places.

The port of this city is described as very busy and crowded during Chola period. The merchandise exported were stamped with tiger symbol indicating that they were from Chola country. Merchants from all parts of India and from South East Asia thronged this city seeking market for their commodities. Articles from Ganges region, food products from Ceylon and spices from Java were imported.

Not only the merchants but also the artisans of different regions such as *Avanti, Magatham* and *Mahratta* had also gone over here to create a number of religious edifices dedicated to various gods and secular buildings for royal personages.

From Sangam literature it is understood that this city was ruled by successive Chola kings viz. *Ilanchetchenni* of Neytalanganal, *Chetchenni, Nalangilli, Killivalavan* and *Karikalavalavan.* The following famous poets are also said to have hailed from this famous city *Kantaraitanar, Karikkannanar, Centan Kannanar, Chenkannanar* and *Napputanar.*

Indra Festival

The ancient Tamil epics, *Silappadhikaram* and *Manimekalai*, make pointed reference to the celebrations of this festival in Kaveripumpattinam. Particularly the Silappadhikaram gives a graphic description of the celebrations.

According to Tamil traditions Indra is the presiding deity of the pastoral regions and is the giver of plenty. It is seen that the festival marks the beginning of Spring with the entire landscape putting on an agreeable look with green plants and blossoming flowers. The chapter on Indra vizha in Silappadhikaram makes it clear that this is a spring festival. It is called *Venil vizha* in Tamil and *Vasanta utsava* in Sanskrit. It falls in the month of Chitra, [April-May]. Particularly the full moon day in the month of Chitra, i.e. Chitra Pournami is the most celebrated day for the festival. The Indra vizha at Kaveripumpattinam is said to have been celebrated on Chitra Pournami day, which incidentally coincided with the asterism Chitra, "Chitirai Chitirai tingal sernthathu".

The coming of spring and tender breeze, infuses the spirit of romance in human heart. This particular season is chosen for social mingling and pursuit of carnal pleasures. Thus the festival of Indra also marks the beginning of the festival of Kama, the God of love. Even to this day the festival of Kaman Pandigai is celebrated in a number of places in Tamilnadu, in the month of Chitra and Vaikhasi.

According to Sanskrit tradition the great sage Bharata is said to have faught his treatise on Natya in the festival of Indra. It is of interest to note that the story of Silappadhikaram, centers round Madhavi, an accomplished dancer. According to Tamil tradition the celebration of the festival of Indra is intended for fulfilling two aims. Firstly the proper celebration of the festival is said to bring fertility, wealth and pleasures to the inhabitants of the city. Secondly and perhaps more vitally, it is said to bring prosperity to the kingdom. Silappadhikaram refers to these roles of Indra vizha in a number of places.

The celebrations are detailed in Silappadhikaram. The festival began at the temple of *Vajrayudha,* the weapon of Indra. The festival drum from the temple, was ceremoniously placed on a decorated elephant and taken in procession to the temple of *Airavata,* the mount of Indra. There the inauguration of the festival is announced by beating the drum by a *Valluvan*. In a temple of *Asvatha tree,* (the divine tree), a flag was hoisted to mark the beginning. The flag carried on it the painted figures of *Airavata* and the eight auspicious symbols. Soon after princes, business men, commanders, administrators and others offered worship for the prosperity of the kingdom. Auspicious water from the river Kaveri was brought and the *Vajrayudha* of Indra was anointed.

The women of the Marava community offered worship on this occasion. Their offerings consisted of flowers, incence cooked rice mixed with blood of sacrificed animals, liquor etc., and at the end they performed the folk dance called *tunangai.* The Maravan representing the heroes, made supreme sacrifices on this occasion. They cut their own head and offered it on the altar. They considered such an offering brought fertility to the country and prosperity to the kingdom. Such a practise seems to have been very common in ancient days as literature is full of such references. In sculptures too we find heroes portrayed at the foot of Durga, offering their own head. An inscription also of 9th Century CE. speaks of such a sacrifice. It is evident that heroes were prepared to offer such supreme sacrifices for the welfare of the society.

The Indra Vizha according to Manimekhalai was celebrated for seven days when people forget their worries and delighted themselves in pleasures. On these occasions festivals were performed in all the temples. People gathered in large numbers to listen to the exposition of doctrines of various sects. Religious dialogues, literary disputations, staging of dramas were quite common.

It is of interest to mention that most of the well known Sanskrit dramas were written for being enacted on Indra Festivals. *Malavikagnimitra* of Kalidasa, *Ratnavali*, and *Priyadarsika* of Harsha, *Vasantika parinaya* of Sathani are only a few examples which were thus composed. That Vasantotsava and Indrotsava are identical is attested by Harsha who mentions it as Indrotsava in his Nagananda. Varadacharya in his *Vasanta tilakabana* refers to *Makara*

dhvayapujotsava, namely the festival of Kama, which incidentally shows the close association of Kaman Pandigai with Indra Vizha. The celebrated *Bharatam* in Tamil by *Villiputturar,* has a Sarga itself named after Vasanta. That this Indra Vizha seems to have been popular even in 10th Century CE. is attested by an inscription from near Kalashasti. It refers to an endowment, made for the celebration of Indra Vizha in the reign of Parantaka Chola. The Indra vizha is a unique festival, which is celebrated to extol the nature, which brings forth joy and happiness to people by its seasonal change.

According to Manimekhalai, the Indra festival was instituted by one Chola king Thodittoal Sembiyan the victor of Tingayil. It is of interest to mention that the work *Manimekalai* begins with the announcement of Indravizha.

Such a great and magnificient city is said to have been submerged under the sea due to non celebration of festival for Lord Indra. But according to the hymns of Saiva saints and inscriptions it is found that the entire city had not been lost. Because the Saiva saints sang the principal deity of Pallavaniccuram as the God of *Puhar Pallavaniccuram.* It means that Pallavaneswaram was situated as a suburb of Puhar during 7th Century CE. Hence it is understood that Poompuhar had retained its fame and predominant position even during 7th Century CE.



PLACES IN AND AROUND POOMPUHAR

Akkur, Sayavanam, Tirunangore, Thiruvenkadu, Keezhaiysur, Melaiyur, Pallavaneswaram, Melapperumpallam, Kilapperumpallam, Manigramam, Talachenkadu are the historically important places in and around Poompuhar. They were once parts of Poompuhar city, even today reminenscences of the ancient Poompuhar are the noteworthy finds of this area.

Tiruakkur:

This place is located in Tranquebar Taluk and is historically significant. There is a temple known as Tiruthanthonreswarar. The construction of the temple is known as *Madakkoil* a kind of temple type prevalent in Tamil Nadu. It was also sung by the saint Appar and the god is known as *Ayyirathil Oru Van.* It is the birth place of *Sirappuli Nayanar* one of the 63 Nayanmars.

Tirusaikkadu (Sayavanam) :

It is situated about 3 km from Poompuhar on the way to Melaiyur. Tirusayavaneswaram is the old temple of this place. Shiva is known as *Tirusayavaneswarar* and the goddess as *Kuyillinam Nanmozhi Ammai*. The inscriptions refer that this place was known as *Kaveripumpattinathu Tirusaikkadu* and was located in Nagore Nadu which in turn is located in a bigger administrative division known as *Rajaadhiraja valanadu* .

Tirunangore

Tirunangore is situated at a distance of 10 km from Poompuhar towards Southeast direction. During the Sangam period it is said that a bride from the *Nangore velier* clan married the great Chola king *Karikalan.* It was the birth place of Tirumangai alvar one among the Vaishnava saints and was the ruler of this region. Seven Vaishanava temples are there in this place. Tirumangai alvar praised the Lord Vishnu in his hymns. There are six other Vaishnava sacred places situated in and around Tirunangore and Tirumangai alvar sang songs on the God of these temples, called *Mangala Saasanam.*

From the inscriptions it is revealed that it was once a capital of the Poompuhar Nadu. The epigraph reads as *Rajadhiraja valanattu nangore nattu Sayavanam.* Every year during the month of January (Tamil month Thai) after the Thai Ammavasaya (new moon) day 11 Garudaseva festival is celebrated in grand manner. The Vaishanavites all over India and even from abroad visit this place.

Manigramam

It is situated about 4 Km frrom poompuhar towards north west direction. Black and red ware sherds, Rouletted sherds were collected during the excavation. These are an inscription from Taku-Pa in Thailand mentions about this village.

Takua-pa is a place in Thailand, referred by Ptolemy as Takola. A panel of Tamil inscriptions found in this place dated to 9th Century CE, records the construction of a tank, named *Avani-naranam*, by a person

who described himself as the Lord of *Nangur*. The tank is placed under the protection of three sets of settlements; a) the members of the *Manigramam*, b) the residents of the cantonment [Senamukham] and One other group whose name is not readable. Prop. Nilakanta Sastri has discribed this inscription in detail.

1) Varman [ku]	வர்மந்[கு]
2][ma] Manthan Nang [ku]	[ம] மாந்தாந நங் [கூ]
3] ... Totta Kulam Pe	... தொட்டகுளம்பெ...
4] ... [Ra] nam Manikkramam	[ர]ணம் மணிக்கிராம. . .
5] ...Senamukhattarku	...சேனாமுகத்தார்க்கு
6] [ya] tharkkum Adaikkalam	...[ய]தார்க்கும் அடைக்கலம்

According to Prof. Shanmugham, there was no reference of the tank named *Avani – naranam* in the inscription, which is presently kept in the local museum at *Nakhoh Si Tammarat* in Thailand. He says that the inscribed stone might have been damaged in due course after it was read by Prof. Sastri. But Prof. Sastri had identified the name Avani – Naranam, with the Pallava king Nandivarman III [826-850 CE]. The maintenance and protection of the tank was handed over to three merchant communities namely Manikkramam, Senamukham and another group.

The mercantile communities mentioned in the inscription were in existence in Tamil Nadu from 6th century CE onwards. There are large number of inscriptional references in Tamil Nadu about these merchant guilds and their trade activities. It is interesting to note that the same kind of mercantile guilds were present at Takua-pa, which is noticed from the inscription. The place names such as Nangur, Manigramam are some of the places still in existence in Tamil Nadu, that too in present

Nagapattinam district. Kaveripoompattinam, an emporium was once a flourishing port near Nagappattinam and was the second capital of the early Cholas. There is a place called Manigramam, near Kaveripoompattinam where excavation revealed many artefacts especially beads, and semi precious stones. It can be assumed that the name Manigramam mentioned in the Takua-pa inscription is one and the same Manigramam of Tamil Nadu. There is a place called Takkolam near Chennai in Tamil Nadu. Due to the influence of Takua-pa, the name might have been known to merchants from Thailand who would have settled here. It can be safely assumed that the merchants from this region had trade contacts with Thailand. It also shows that the Tamil merchants, wherever they went, had passion for the adopted land where they settled, and participated in many welfare activities like the construction of tank as mentioned above.

Thiruppallavaneswaram

It is about 3 km from Poompuhar. This is an ancient and very beautiful temple. Shiva of this temple is known as Pallavaneswarar and the goddess *Soundaranayaki.* Iyarpakai Nayanar and Pattinattar were born here. The Hero and Heroine of Sillappathikaram *Kovalan* and *Kannagi* were also born here.

Melapperumpallam and Keezhapperumpallam

It is located in Tranquebar taluk. These two places are situated very near to Poompuhar and Thiruvengadu . The *valampuranathar* temple at Melapperumplallam has Chola period inscriptions. The world famous bronze of Shiva in the form of Birava also known as *Vattanaippada*

nadantha nayakar is from this temple. Keezhaperumpallam is at a distance of 2 km from Poompuhar. It is the temple where the famous Kethu (planet) has a separate shrine.

Thiruvenkadu

Thiruvenkadu is situated at a distance of 10 km from Sirkazhi. This is the place where Meykandar was born. Pudhan (Mercury) has a separate shrine in Thiruvenkadu temple. The presiding deity is Sri Swatharaneswarar. This place got the hymns of all the four Saiva saints. The saint Pattinathar got a Linga from this place. This is very important sacred place for the Saivites.

Thalaichenkadu

The very ancient Sangam period settlement is found in this place. It is an important Vaishnava sacred place and one among the 108 Vaishnava temples. An inscription of the Chola king Paranthaka I was found in the school play ground. The Tamilnadu State Department of Archaeology, started excavation work here during the season 2010-11 to reveal the archaeological potentialities of this area.



EXCAVATIONS

The excavations conducted on the shore of Kaveripumpattinam by the Archaeological survey of India under the guidance of Dr. S.R. Rao the then Superintending Archaeologist and Dr. K.V. Raman, then Technical Assistant, revealed that there are some structures still on the shore itself. The wharf at Kilaiyur, the water reservoir at Vanagiri and the Bhuddha Vihara at Melaiyur are the unmistakable evidences for the existence of ancient city under the earth of the shore. But the possibility of the submersion of a part of the city is still not ruled out. Excavations were made on the sea bed of the Ocean to bring to light the greatness of the ancient city.

1) In 1963-64 the Archaeological survey of India carried out excavation and found out the Buddha vihara. From the excavation site, Buddhapadam, made up of Palnadstone, Sangam Chola-coin, Black and red ware, Black ware sherds were collected.

2) A water-reservoir constructed with big brick was found at nearby place called Vanagiri. This structure belongs to Ist 2nd century C.E.

3) Wharf (boat-house) was found out at a place called Kilaiyur. On the banks of river Kaveri. It belongs to 5th-4th century B.C.E. (i.e. 316 $\pm$ 103).

4) Roman coin was found at Vellaiyanniruppu excavated site.

From 1995-1998, Tamilnadu State Department of Archaeology conducted excavations at various places like *Melaiyur, Sayavanam, Kaliyammanthoppu, Kizharveli, Manikkramam, Vanagiri-thosakkulam* and *Neidhavsal.*

1) Melaiyur: 16th-17th century brick structure was exposed in the excavation. This structure might be the Temple wall. A Nayak coin, a Danish VOC coin were also collected from the trench. A stucco head recovered from the site might have been from the temple tower.

2) Sayavanam-Kaliyammanthoppu: This place is located opposite to Sayavaneswarar Temple. Medieval Pottaries and spouted knobs were collected in this excavation.

3) Kilzharveli: This place is located in Manikkraman village In this excavation Wharf (boat-house) was revealed. It belongs to 5th-4th century B.C.E.

4) Manikkramam: In this excavation Black and Red wares, Black wares, Roman rouletted potsherds, Carnelian and crystal beads were collected.

5) Vanagiri-Thosakkulam:

A rare Brahmi script potsherd was noticed in this excavation. *hapakethero"* It reads as ("A) (அ) ஹாபாகேதரோ. This potsherd belongs to 3rd century BCE.

In the course of excavation, two brick walls, running North East - South West direction were noticed at a depth of 20 cms. The

brick wall found with 14 courses of bricks was measured to be 1.70 mts. in height. Binding material used was soft clay. These two brick walls were found placed wide apart and provided with platforms in such a way as to have passage for free movement of water.

During excavation four wooden poles were noticed in the trench, of which two poles noticed in the southern side of the trench were found to have been made out of *Palmyra* (Palm) tree. One of the poles was planted close to wall on the western side of the passage while the other was close to the wall on the eastern side of the passage.

The other two wooden poles found in the Northern side of the trench. One of the pole was noticed close to the wall on the eastern side of the passage. These wooden poles are made of *Illupai* tree. Boats might have been tied to these poles.

The breadth of the passage of the wharf was measured as 65 cm. The breadth of the wall on the western side of the passage and eastern side of the passage were measured to be 2.90 mts and 3.50 mts. respectively. Total breadth and length of the wharf was measured to be 7.05 mts and 7.20 mts.

In the course of excavation bricks in various sizes were encountered. They are as follows;

1. 61 x 40.5 x 10 cm.
2. 52 x 32 x 8 cm.
3. 51 x 35 x 7 cm.
4. 50 x 34 x 9 cm.
5. 47 x 46 x 6 cm.
6. 44 x 46 x 7 cm.
7. 42 x 33 x 8 cm.

Besides finding of wharf, black and red ware sherds and rouletted sherds were also recovered at Kizharveli. In addition to this a terracotta head and a terracotta Buddha pada (feet) were also collected at the depth of 20 cms. & 25 cms. respectively. The wharf was dated to be 4th Century BCE.



UNDER SEA EXPLORATION / EXCAVATION

The preliminary survey on the sea off the shore of Kaviripoompattinam began in the year 1981. This exploration was carried out by the joint efforts of Tamilnadu State Department of Archaeology and the National Institute of Oceanography, Goa.

The exploration was made by deploying side scan sonar, Echo sounder and Magnetometre. These sophisticated equipments showed some tangible results on the graphs. Three peaks measuring about two to three metre height were located. The National Institute of Oceanography had suggested the undertaking of intensive exploration by sending divers into the sea.

On the advice of the National Institute of Oceanography, State Department of Archaeology submitted a proposal to Government for carrying out the intensive exploration. Government were pleased to grant an initial sanction of about 10 lakhs Rupees for the year 1990-91. After having made necessary arrangements for the survey, the exploration had started on 25th February 1991 in the sea off the shore of Poompuhar.

During this season Geophysical survey was also conducted first to locate the objects. This survey was done by a team of Scientists of C.S.I.R. First they located a shipwreck under sea, about 70 feet in depth and about 4.5 k.m. away from the sea shore. When this

shipwreck was examined by trained divers, it was found that there were considerable number of ingots some of which bearing the legend W. Blackett written in English script on one side and the year1792 on the other side. Hence it is clear that this shipwreck might have occurred in the year 1792 or after.

Further survey had revealed that there is a row of structures under sea in shallow waters about 200 to 300 meters away from the sea shore. A group of structure is located near the Kaveri confluence, another just opposite to the present Kannagi statue and a few just opposite to the present light house. When one site was examined by sending divers, it was found that the structure was completely covered by sea sand, and is about one metre below the sea bed. Due to the transportation of sand by tides the clear visibility was not found. However with great effort the divers could collect few sand stone slabs, a brick and some potsherds. These artifacts confirm that there could have been habitational structure.

During the closing period of exploration the Scientists were able to locate one big site surmising that it could be a big structure of Sangam age assignable to 1st Century BCE. to 2nd Century CE. Then it became the centre of intensive survey. Divers were sent to explore it thoroughly. First they paid attention to decide if it could be a structure or a sea rock. Finally they came to the conclusion that it was a man made structure. Then they took measurements and made drawings on graph sheet. They brought some sample of stones that were found used for construction. These stones appear to be either sandstone or laterite.

This structure appears to be in apsidal shape facing North. The thickness of the wall runs about one to two metres. At some places the height of the wall goes upto five to six metres. Total length of the structure is about 20 metres and the width about 15 metres. It is about 23.5 metres in depth. This place was traditionally known as Karaiyappar.

This site is about 4.5 k.m. away from sea shore. If this structure is proved to be one of the structures of ancient city Poompuhar, then the city could have extended upto this part. So there could be the possibility of having about half of the city submerged under sea. The reference to the submersion of Poompuhar in literature has clear bearings and is proved beyond doubt by the material evidence. Further survey would reveal more facts about the once glorious city Poompuhar.

During the year 1993 the explorations were carried out from 27.1.93 to 28.2.93 and the diving operations were supported by echosounding and side-scan sonar surveys for seafloor studies. The Miniranger and GPS were deployed for position fixing.

The main objective of this year's survey was to find out the submerged extension of the ancient town of Kaveripumpattinam and how much of it was swallowed by the sea. During the present season explorations were carried out in the intertidal zone as well as offshore area between Vanagiri in the South and Nayakkarkuppam in the North at the water depth of 5 to 7m. Also some more details on previously located shipwreck and a stone structure in 23 m. water depth were collected.

The exploration of the intertidal zone revealed the presence of ringwells at Vanagiri and Poompuhar. At both the sites one ringwell each was exposed. A brick wall of the Sangam period was exposed a few metres south of Kannagi statue. The brick size of this structure is 36 X 18 X 6 cm. The ringwells and structures are assignable to period II if the Kilaiyur wharf is assigned to Period I (3rd century BCE.). Ringwells may be of 2nd century BCE. to 4th century CE.

During low tide operation four brick structures were exposed opposite the present Kaveri mouth at 1 m. depth. The exploration of these structures indicated that they are disturbed walls 25 m. in length and 3.4 m. in width. The size of bricks used is 22 x 13 x 6 cm. and Lime mortar served as binding medium. Provisionally the structural remains are assigned to period II.

As a follow up action deeper waters off Poompuhar were explored. Two sites were selected on the basis of geophysical survey. One is opposite to the present Kaveri mouth near Vanagiri and another opposite to Kadaikkadu situated north of Poompuhar. Airlift operations in 7m depth revealed three courses of stone masonry off Vanagiri. The blocks vary in size 30 x 20 x 5 cm. and 60 x 35 x 10 cm. The approximate date of the structures can be ascertained from associated pottery collected at both the sites. Megalithic Black and Red ware, Red ware, Grey ware and Buff ware are assignable to period II (2nd Century BCE. to 4th Century CE.)

The artefacts belonging to period III [5th - 12thCentury CE.] such as Chola coins, bricks and tiles etc., were absent.

The shipwreck discovered in 1991 at a water depth of 19 m. was explored further and the wooden planks of the hull were traced.

The ship is about 50 m. in length and 15 m. in width. This ship wreck of 1791-92 is assignable to period IV [12th - 18th Century CE.].

As a result of this season's exploration it was possible to identify three periods of structural remains of ancient poompuhar, the first one above High Wave Level, the second in 1 m. depth and the third in 5 to 7 m. depth. These evidences are only indicative of the extensive submergence of the ancient port settlement. Further work alone will reveal the full extent of one or more settlements of 3rd century BCE. to 4th century CE. in a vast area extending from Nayakkarkuppam to Tranquebar. The nature and age of the U-shaped structure in 23 m. depth are yet to be ascertained. It is now possible to confirm that a part of an ancient port-town of 3rd century BCE. to 4th century CE. in an area traditionally known as poompuhar was submerged and archaeologically significant evidence has been obtained both for submergency of the town and transgression of the sea.

During the exploration carried out in the year 1994 it was found that the sea was eroding the coast heavily and even the month of Kaveri near Kaveri temple was buried under sediment. Its connections with the sea was cut off. Between Vanagiri temple and Chinnvanagiri at a few places rectangular compact mud platforms of what appeared to be plinths of buildings from which bricks were washed away were explored in the inter tidal zone close to the shore. It was therefore decided to lay trenches at a few places (VGR

1, VGR 2 and VGR 3) in the inter tidal zone over a length of 1 km. along the coast to the north and south of the Vanagiri temple. The excavation had to be done very cautiously since the site was being eroded very fast almost every hour.

The excavation revealed two terracotta ringwells one to the north (VGR 1) and the other to the south (VGR 2) of Vanagiri temple. Many rings have been washed away from them. After further excavation in Trench VGR 2, Two more ring wells came to light but they could not be photographed owing to poor visibility. In trench VGR 3 a neatly paved floor of a brick structure in situ which may be a wharf or floor of a house was exposed in excavation and a rectangular platform further north of it was also recorded. Within a distance of 500 m. South of Vanagiri temple atleast two structures and three ringwells have been discovered. The size of the bricks of the structure is 35 x 20 x 5 cm. while stray bricks found on shore measures 26 x 20 x 6 cm. In view of the high rate of coastal erosion it is now fairly certain that the brick structures in 7 m. depth off Kadaikkadu associated with Megalithic black-and red ware (noted in the exploration in 1993) do belong to Sangam and Pre Sangam periods as did the brick wharf at Kilaiyur. Similarly other features in 11-12 m. depth also a part of Poompuhar city and port and therefore the zone upto 23 m. depth needs to be intensively explored in the fair season. The sea has encorached on the ancient city and submerged atleast an area of 5 km. along the coast and 2 km. seaward from Kadaikkadu to Chinnavanagiri and further south. This

must be minimum extent of the ancient Chola port. It will not be surprising if the cairn circle near Tranquebar takes the ancient habitation to mid first millennium BCE.

The 1994 exploration has extended the limit of the submerged city of Poompuhar and highlighted the fact that what appeared to be mere clay patches are actually remains of ancient brick buildings submerged in the sea and subsequently buried under sediment. Due to the discovery of move artefacts in the inter tidal Zone. It was proposed to explore initially seaward of Kadaikkadu to Chinnavanagiri in 5 to 12 m. Zone in August / September subject to weather conditions and visibility. Explorations in deeper depths up to 23 meters can be takem up later. Onshore excavation is essenyial for correlating the submerged structures, with those buried under sand dunes to the north south of Kannagi statue between Nayakarkuppam and Chinnakudi. It is also necessary to put some trial trenches between Kilaiyur wharf and the sea shore as also in the Vanagiri and Chinnavanagiri beach. Immediately after exploring structural remains in future onshore and offshore excavations. It is necessary to conserve a few highly significant ones such as ringwells, wharf and brick paved houses.

During the off shore exploration of poompuhar which began on 18th August 1994, the scientist and the diver archaeologist made exploration to recover the things of archaeological potentialities immersed under the sea. Due to the bad monsoon and the unfavourable weather, it was impossible to deploy the Air lifting operations to unearth the antiquities that are hidden under earth. Due to the sea currents and rough waves the visiblity is zero for nearly 3 kilometres and also it wasimpossible to photograph the

exploration work. Hence the exploration work was suspended for the time being and to be continued in the month of February- March 1995.

In the year 1997 from 4-2-97 to 12-3-97 the exploration under taken from north to south part of Poompuhar. The exploration revealed that the U shaped structure was constructed with laterite stone and noticed towards north south direction. The ship wreck portion was also explored for further investigation.

The Government of Tamilnadu has constituted an Expert Committee in Continuation of the announcement made by Chief Minister of Tamilnadu at World Tamil Classical Conference to under take off shore exploration at Poompuhar and Kumari Khandam (Vide Go. Rt. No. 261 Tourism dt.10.12.2010.)

Tourism and Culture Department Secretary is the Chairman of the expert Committee, while Prinicipal Secretary & Commissioner of Archaeology is the member Secretary and the Co-ordinator of the Project. The other members are 1) Director, National Institute of Ocean and Technology, Chennai, 2) Director or B. Sasisekaran, National Institute of Ocean and Technology, Chennai 3) Superintending Archaeologist, Archaeological Survey of India, Chennai Circle, Chennai, 4) Vice- Chancellor or his representative, Tamil University, Thanjavur 5) Thiru. Natana. Kasinathan, former Director of Archaeology Chennai.

The Preliminary meeting was Convened on 27th January 2010 where in after detailed discussions, the following decisions were taken:

a. The Committee decided to draw up a project proposal by the TNSDA in consultation with NIO, NIOT & ASI for funding support from Government of India, preferably before end of March 2011.

b. The Committee finally decided to organize a closed circuit workshop either at Poompuhar or at Chennai with experts in the field in order to finalize the modalities for the excavation.

c. During the conduct of workshop, District administration, security agencies, coast guard, fisheries department, fishermen community and local people should be involved.

d. It was mentioned by Principal Secretary & Commissioner of Archaeology that the comprehensive project proposal for conducting off-shore exploration has to be prepares and sent to Government of Tamil Nadu for forwarding it to Archaeology Survey of India to place before the Central Adivisory Board of Archaeology [CABA] meeting for getting permission to conduct exploration.

e. As far as Kumarik Kandam exploration is concerned, Dr. Athiyaman of Tamil University brifed the committee on the steps taken so for. The Committee advised Tamil University to give a detailed project proposal to the Committee.

Participants

1. V. Ramamurthi
2. S. Selvaraj

POTTERIES & ANTIQUITIES

From the excavations at Poompuhar Black and red ware, Blackware, Roman rouletted ware, Terracotta figurines, Terracotta Buddhapadam, Big Bricks, Beads were collected.

Potteries:

The Potteries collected from the Poompuhar are grouped under the following types.

1) Black and red ware
2) Black ware
3) Coarse red ware
4) Rouletted ware

Black and Red Ware:

Black and red ware was the predominant type of pottery found during the excavations and they occur in all the Iron age settlements of megalithic and early history period in south India. This type of pottery belongs to 2nd Century CE.

Black Ware:

This ware was found in good numbers with Black and red ware.

Coarse Red Ware:

This variety found in large numbers in the upper levels of excavations.

Roman Rouletted Ware:

Excavation at Manigramam yielded large number of Roman rouletted sherds. This pottery belongs to 2nd century CE.

Large Size Bricks:

Two large size bricks were collected from Kizharveli excavation. The Brick mentioned about belongs to 4th century BCE.

Broken Deer Horn:

It was collected from Kizharveli excavation. It was broken into two parts. Its length is 11 cms. and breadth in 3 cms. It belongs to 11th-12th century CE.

Terracotta Figurines:

Terracotta Buddha's head and terracotta Buddhapadam were collected from Kizharveli excavation. These belongs to 4th century CE.

FEMALE MOTIF ON POT

Place of find : Melaperumpallam
Taluk : Sirkazhi
District : Nagapattinam

The motif of female figure on the rim portion of an Urn was collected from the above village during exploration. Face of the female figure is completely mutilated. Bust portion alone preserved. One of the breasts is broken.

Dimension of the terracotta is 169 x 82 mm. Period of the figurine may be datable to 1st Century CE.

FEMALE MOTIF ON POT

Place of find : Melaperumpallam

Taluk : Sirkazhi

District : Nagapattinam

It was found during exploration from the above site. It is a female figure, most probably young, depicted in motif form on the rim position of a pot. Hand is hanging and shown stretching wide open. Hair dress is shown in peculiar style.This terracotta figurine of female is depicted with upper garment and waist band. Thigh is shown bulged and left hand is rested on thigh. The dimension of the antiquity is 130 x 100 mm. Date of the figurine is assigned to 4th Century CE.

FEMALE MOTIF ON POT

Place of find : Melaperumpallam

Taluk : Sirkazhi

District : Nagapattinam

It was found during exploration from the above site. It is a female figure, most probably old, depicted in motif form on the rim position of a pot. Bones of the fingers are visible. Head portion with hair dress is peculiar to notice. Upper garment is absent and waist band is noticed. Breasts are hanging down. Dimension of the antiquity is 120 x 80 mm. Date of the figurine may be assigned to 4th Century CE.

BUST OF HUMAN

Place of find : Poompuhar

Taluk : Sirkazhi

District : Nagapattinam

It was recovered from the trench-4 (PMR-4) at 0.25 mt. depth. In the preserved antiquity, head gear and hands are broken. It is observed that the human figure is depicted with ears with big earlobes and sharp nose resembling beak of a bird (Parrot). Ornament around neck is shown in line drawing. It is measured to be 81 x 89 mm. This antiquity may be datable to 6th Century CE.

BUST OF HUMAN

Place of find : Poompuhar

Taluk : Sirkazhi

District : Nagapattinam

It was found during exploration from the above site. Face of the antiquity is completely defaced and the hands are found broken. Eyes are projected in big size. Dimension of the terracotta figurine is 67 x 73 mm. It may be dated to 6th Century CE.

HUMAN FIGURINE

Place of find : Poompuhar

Taluk : Sirkazhi

District : Nagapattinam

It was collected during exploration from the above village. In the recovered antiquity legs and hands are in broken state. Ornament round neck is marked in lines drawing. The human figure is depicted with curly hair above forehead and ears with big earlobes. Dress is concerned loin cloth alone is shown. The eyes, ears and lips of the preserved terracotta figurine are completely defaced. Dimension of the figurine is 120 x 75 mm. Period of the antiquity may be assigned to 6th Century CE.

HEAD OF A BULL

Place of find : Poompuhar
Taluk : Sirkazhi
District : Nagapattinam

It was collected from excavation conducted at Poompuhar. It was recovered from 1.60 mt. depth from the trench-10 (PMR-10). Eyes are shown in line drawing. Ears and horn are preserved. Bell is tied around neck and nostrils are shown clearly. It is measured to be 61 x 71 mm. Date of the antiquity may be assigned to 10th Century CE.

HEAD FIGURINE

Place of find : Poompuhar
Taluk : Sirkazhi
District : Nagapattinam

It was unearthed during excavation conducted at Poompuhar. The collected antiquity is in highly corroded state. The Terracotta

figurine is depicted with sharp nose. Legs and hands are broken. It is measured to be 125 x 57 mm. The period of the antiquity may be assigned to 1st Century CE.

TORSO

Place of find : Poompuhar
Taluk : Sirkazhi
District : Nagapattinam

It was collected during exploration from the above the site. The head of the terracotta male figurine is missing. Male figure is depicted with peculiar sitting posture. Long and thick ornament from neck to belly is seen. Cloth band around arm and chest is noticed. Male is depicted with dhoti.

It is measured to be 76 x 86 mm. It may be datable to 18th Century CE.

Spouted Knobs:

Spouted Knobs were collected from the excavations and they belong to 10-13th century CE.

Antiquities collected from Undersea excavation:

1) The parts of the submerged ship – unshaped parts of a brokenship excavated under Poompuhar sea were found. This belongs to 18th century CE.
2) Lead blocks of wreckship in 1792:-

At about five lead pieces measuring about 8 cms x 16 cms were discovered in a ship near Poompuhar. In a particular leadblock

the year 1792 was inscribed and in another lead block the letter W: BLACKETT were inscribed.

The Wreck-site lies at a depth of 17 m and is visible over an area approximately 30x15m. The echogram indicates its height above the seabed to be 2.5 to 3 m. The wreck appears to be buried in coarse grained sediment. Results of the sidescan sonar survey carried out at the shipwreck location indicate two exposures separated by 5 to 6 m. It seems likly that the sunken ship broke in two.

The metal detector confirmed that part of the ship is buried beneath the sandy sea floor. The larger exposed part of the ship is covered with ballast of various sizes and barnacle growth. Due to active fishing at this site, a large number of fish-nets, fish -hooks and catamaran anchors are lying over and around the wreck. Metal detector signals showed that the length of the wreck-site is around 50 m, with a width of around 15 m.

The two parts are located close to each other and separated by sand. The larger section probably represents the fore part of the wreck. Since it is lying tilted to one side with a heavy growth of barnacles and a large amount of sediment deposition, it is very difficult to determine the position of the wreck. A heavily encrusted cannon measuring 2-1m in length was located close to the wreck . Two gun-powder boxes and several unidentified objects were also recorded.

Between the two parts of the wreck, two round circles about 1 m diameter were observed. These appear to be the hatches of cargo holds. Airlift operations inside these holes were difficult due to the heavily encrusted stone blocks.

The most informative findings were lead ingots recovered from the smaller portion (after part) of the wreck. Due to barnacle growth the ingots were cemented together and it proved extremely difficult to separate them. However, a few ingots were successfully retrieved for further study.

All the the symbols and signs impressed on the lead ingots were made visible by chemical treatment. Based on their shape, size and imprints the ingots could be classified into three broad groups.

Groups 1: This group consists of eight boat- shaped ingots, 87-90 cm long 150- 180 mm wide and 6 cm thick. They are cast over a length of 46 cm with the inscription W:BLACKETT on one side. Each letter is 45 mm high and 5 to 7 mm deep. On their reverse the ingots are stamped with various symbols such as IXI, E HI , WB, 7 , A and LI. Three ingots in this group bear a heart symbol around four letters V,I,C and E inscribed clockwise. Two ingots are stamped with the year 1791, while others with 1792. The average weight of the ingots is 68.5 kg (150-7lb).

Groups 2: The two ingots in this group are similar in shape to group I ingots but are of different size (86cm long, 140 mm wide and 70mm thick). These ingots are impressed with a symbol D with a crown above on one side. The height and breadth of the D is 6 cm. On ther everse side, stamps with various symbols such as a heart, and a smaller D with a crown are evident. The average weight of the ingots is 63 kg (138-6 lb).

Group 3: The two ingots in this groups are rectangular, 88 cm long, 145 mm wide and 50 mm thick . These do not bear any moulded

inscription or symbols, but a few characters are stamped on both the sides. These include H, IB and the VEIC heart symbol. The weight of each ingot is 65.8 kg (144.7 lb).

Similar lead ingots have been found in wrecks discovered in other countries. Lead ingots with the VEIC stamp were recovered from the English East Indiaman *Albion* which sank in 1765 enroute for China. These were boatshaped and ranged in weight from 76.8-79.4 kg. The lead ingots in group 5 from the wreck of the Dutch East Indiaman *Campen* are close in weight and length to the Poompuhar wreck (Larn, 1985: 100). Another Dutch East Indiaman the *Kennemerland* contained lead ingots of similar length to those of the Poompuhar wreck but these were heavier. Lead ingots with the inscription W:BLACKETT have been reported from Dutch waters but these belong to the later period (CE. 1825). Lead ingots from both the Netherlands wreck and the Poompuhar wreck were manufactured by William Blackett. This company dates back to the 17th Century and for much of the 19th Century was the largest lead producer in England. Its lead was exported through Newcastle, and particularly Sunderland, to the Baltic among other places. The VEIC stamp on two W:Blackett ingots shows that the firm was supplying the English East India Company.

A copper alloy object was another important artefact recovered from the site. It has two arms 1.27 m long with seven holes in each arm. This rudder gudgeon was recovered along with the lower part of the rudder also made of copper alloy as were ten nails. These were lying about 10 m distant from the exposed portion of the wreck.

The airlifting operation yielded four wooden planks each 20 cm wide and possibly from the deck portion of the vessel. Two copper alloy nails were fastened to the planks and it seems to clear that copper was extensively used in the construction of the ship.

Buddha Statue:

An exquisite Buddha Statue made of Palnad stone datable to 1st-2nd century C.E. was retrieved from sea at a depth of about 40 feet and in a distance of one and half kilometer seaward from Chinnamedu near Poompuhar. This Buddha sculpture is a rare object and may be considered to belong to Amaravathi Art. This statue was found undersea by a fisherman.

CONCLUSION

Poompuhar was once a second capital of the early (Sangam period) Chola dynasty and was a flourishing trade centre. It is an important historical cultural heritage which is submerged in the oceanic water. The excavation at Poompuhar on the shore and off shore revealed the existence of ancient city and its significance in the history of Tamilnadu.

The site museums are set up in locations where excavations were carried out in archaeologically significant sites. In addition to one Underwater Archaeology Museum located at Poompuhar, there are fourteen District Archaeological Site Museums coming under the control of this Department. The Museum is opened mainly to create archaeological and cultural awareness among the public. The excavated antiquities that are available in that area are exhibited in the Site Museum.

An exclusive Underwater Archaeological Site Museum was established in the year 1997 at Poompuhar to exhibit the antiquities recovered from under water exploration. This is the only such kind of Museum in India. Antiquities recovered both from off-shore and onshore exploration and excavation. Roman rouletted sherd, Head of Buddha (Terracotta), Buddhapadam (Terracotta), Big size bricks, Beads, Roman, Chinese potteries, Stamped potteries from

Alagankulam Excavation, Wooden artefacts, Ring well, Megalithic appendages, Chinese jar, British cooling jar, Silambu, Terracotta figurines, Lead Ingots and Buddha statue off Poompuhar, Stone sculpture of Ayyanar and Models of ship.

PARTICIPANTS

Under the guidence of

Dr. R. Nagasamy.

Natana. Kasinathan

A. Abdul Majeed

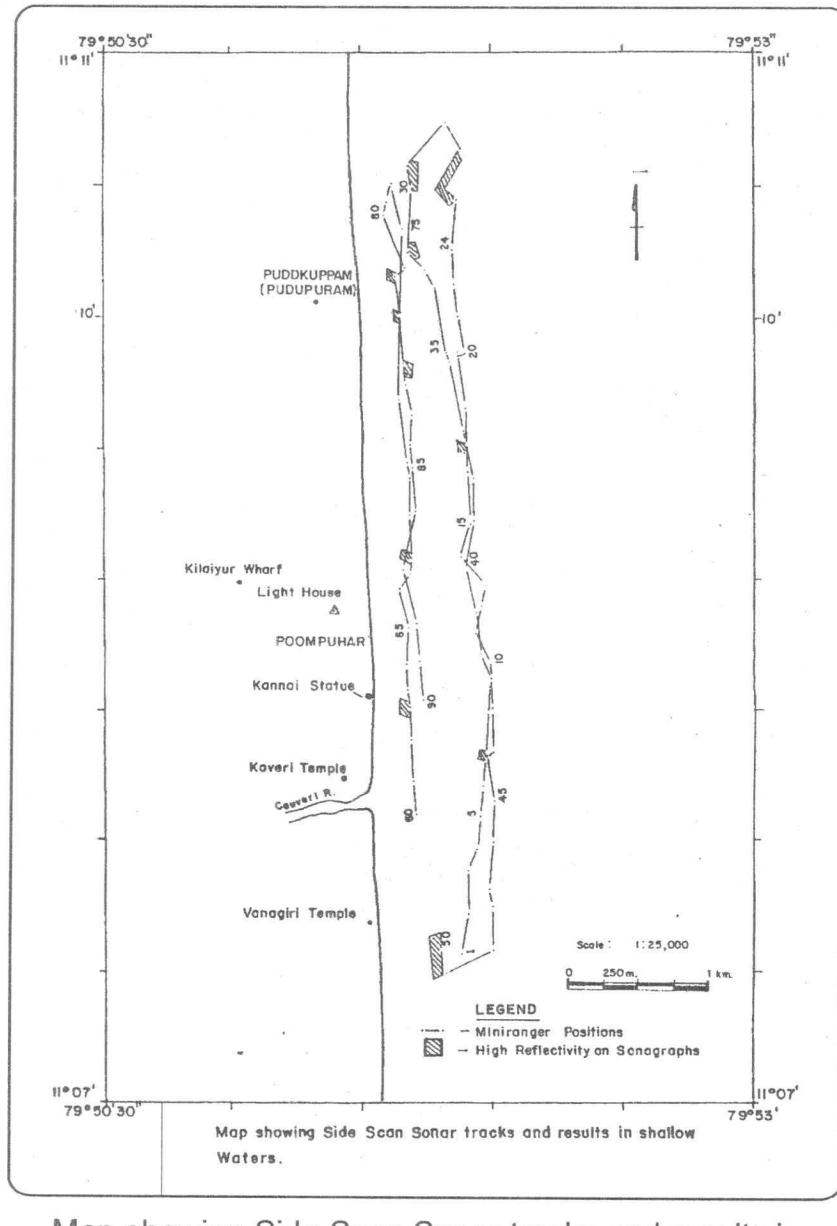
Participants

1. K. Kulandaivelan
2. P. Rajendran
3. S. Vasanthi
4. V. Ramamurthi
5. T. Subramanian
6. K. Nedunchelian
7. P. Gowthamaputhiran
8. R. Muthu
9. M. T. Sridharan
10. Tirunanasampatham
11. N. Balakrishnan

References:

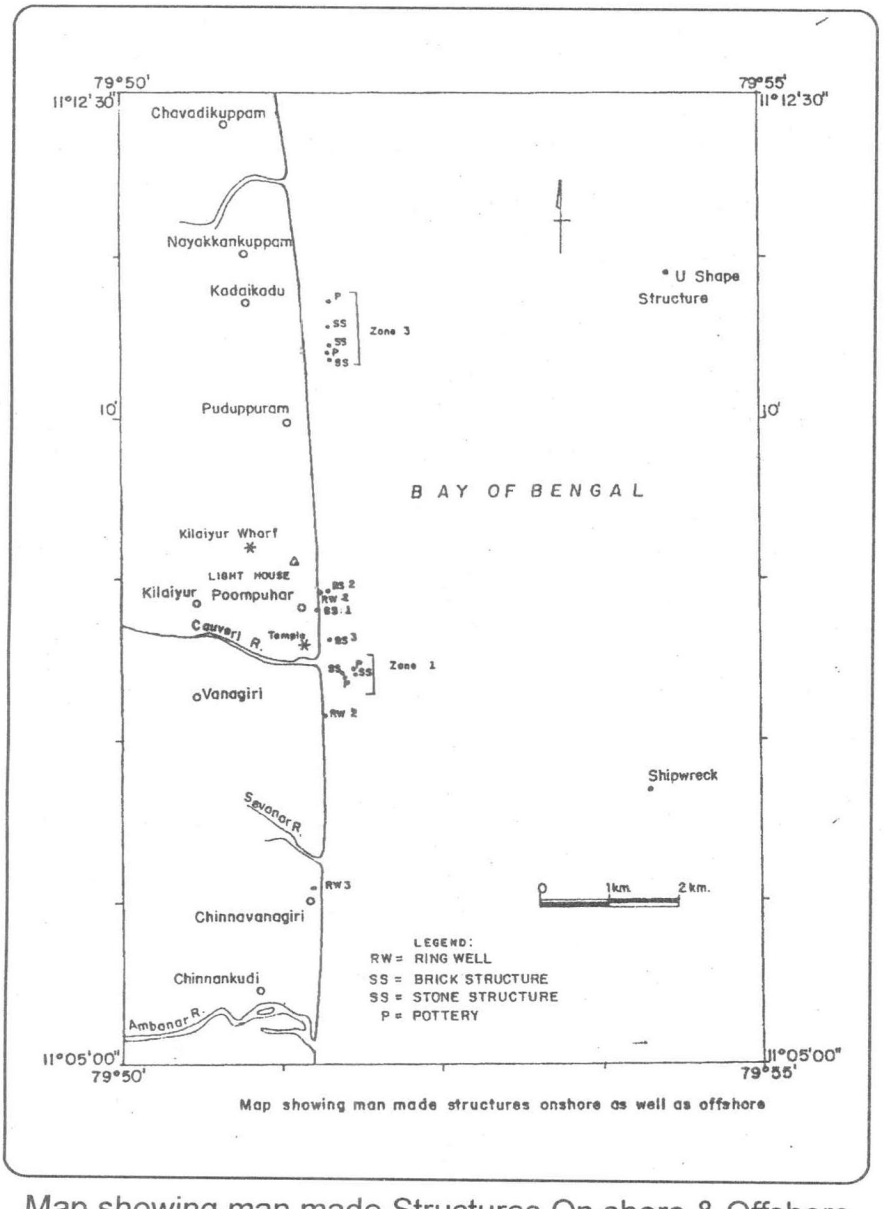
1. Gaur, A.S. and Sundaresh, 1997-98, Under Exploration of Poompuhar and possible Causes of its submergence. Puratatlva 28. pp. 120-27.
2. A.S. Gaur, Sundaresh, Manojsaxena, Sila Tripati and P. Gudigar, Preliminary Observation on an 18th Century Wreck at Poompuhar (East Coast of India) The International Journal of National Archaeology (1997) 26 : 2
3. Dr. R. Nagasamy, Kaveripoompattinam a Guide 1973.
4. Natana Kasinathan, Ancient Sea Ports of Tamilnadu, paper presented in Tamilnadu History Congress, IV Annual Session, 1997.
5. Natana Kasinathan, Antiquity of Sea Voyage in Tamilnadu Abstract of Papers, First international Conference of Marine Archaeology of Indian Ocean , Countries, 1997.
6. Rao, S.R. Journal of Marine Archaeology, vol. 2, July 1991.
7. Ramamurthy, V. Under Sea Exploration and Excavation of Poompuhar, Tholiyal Nokkil Tamilagam Chappter-7.
8. Soundara Rajan, K.V. 1994, Kaveripattinam Excavation 1963 - 73 (A port city on the Tamilnadu coast) memories of the Archaeology Survey of India. No. 90 New Delhi, 1994.
9. Dr. Sridhar, T.S. Archarological Antiquities - A Catalogue (with Special reference to Terracotta) 2009
10. Dr. Sridhar T.S. & Vasanthi, S. Role of Ancient Ports in Promoting Trade and Culture of Tamilnadu in South East Asia, paper presented in 3rd SSEASR Conference, Bali Island, Indonesia, 2008.
11. Inauguration of Thagadur Museum souvenir 1978.

◈ ◈ ◈



Map showing Side Scan Sonar tracks and results in shallow Waters.

Map showing Side Scan Sonar tracks and results in shallow Water



Map showing man made structures onshore as well as offshore

Map showing man made Structures On shore & Offshore

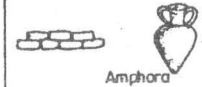
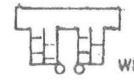
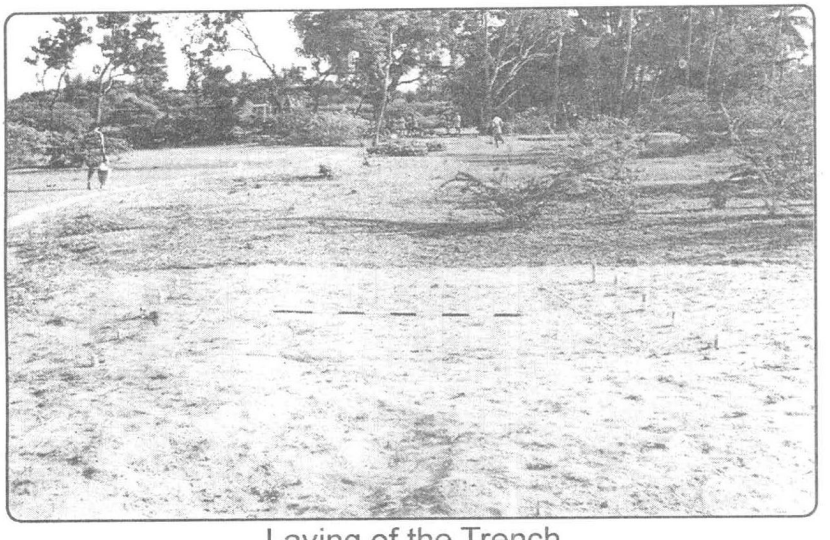
PERIOD	TBR	CNV	VNG	PMR	KLR
V Late Medieval	Danish Fort			Shipwreck 	
IV 9th cent. A.D to 12 cent. A.D	Raja Raja Chola Coins				
III 2nd cent. A.D to 4 th cent A.D				 Budhha Vihar	
II 1 st. cent . B.C to 2 nd cent.AD		 Ring Well	 Ring Well	 Amphora	
I 3rd cent. B.C to 1st. cent.B.C		BLACK & RED WARE		BLACK & RED WARE 	 WHARF

FIG :5. SCHEMATIC REPRESENTATION OF CULTURAL SEQUENCE OF TRANQUEBAR - POOMPUHAR

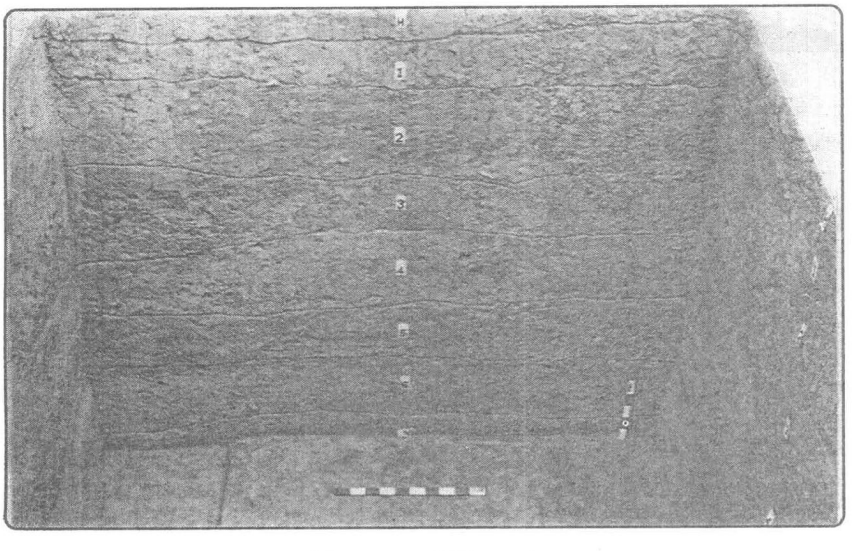
LEGEND:

1 = TBR – TRANQUEBAR
2 = CNV - CHINNAVANAGIRI
3 = VNG - VANAGIRI
4 = PMR - POOMPUHAR
5 = KLR – KILAIYUR
6 = BRICK STRUCTURE

Cultural sequence of Tranquebar - Poompuhar

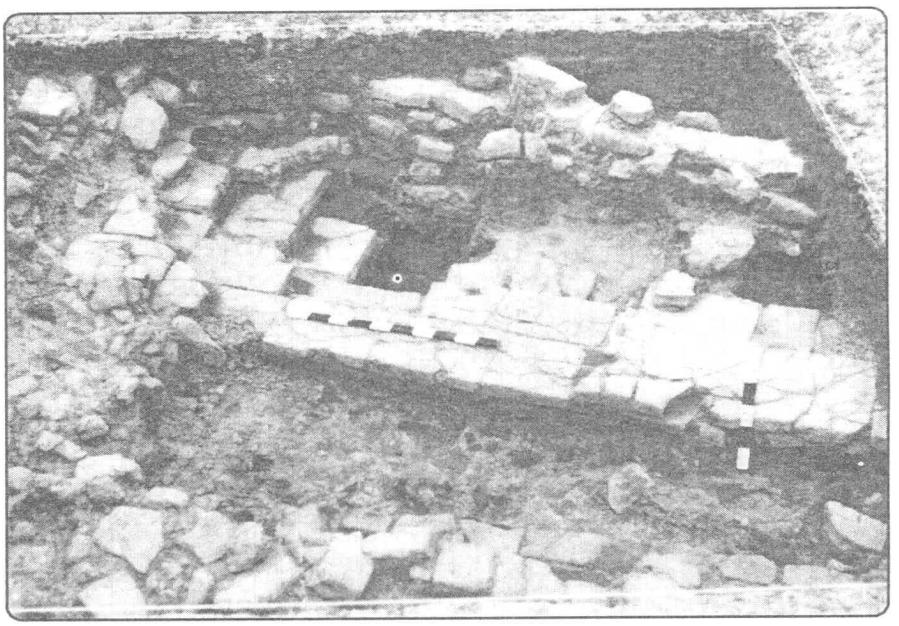


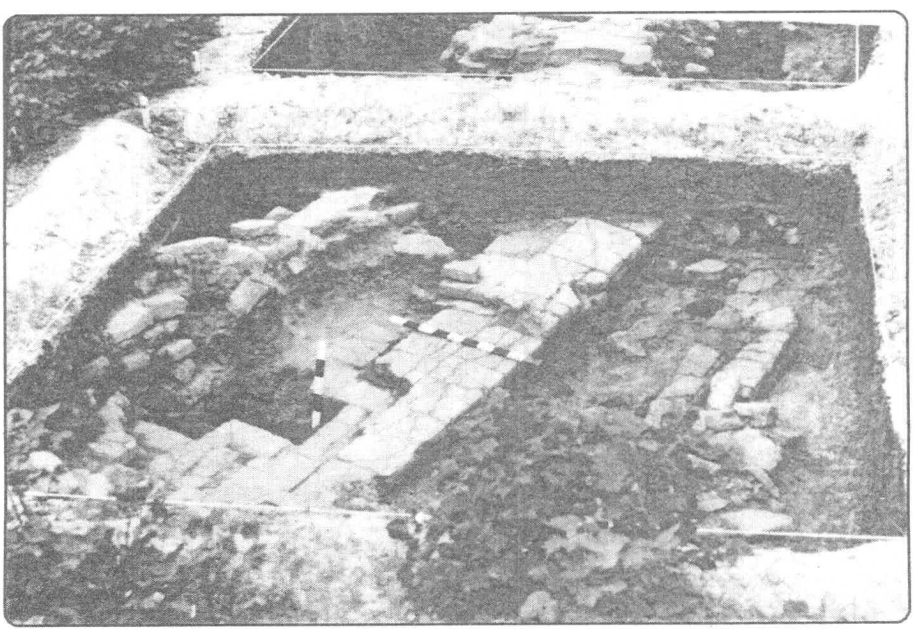
Laying of the Trench



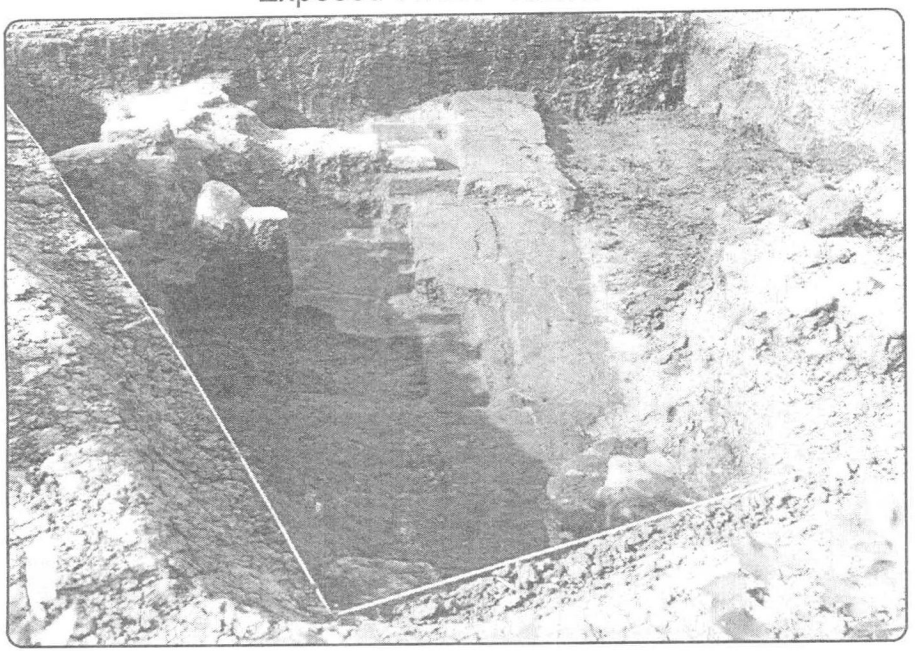
Exposed Trench

Excavated Trenches





Exposed Wharf - KIzharveli

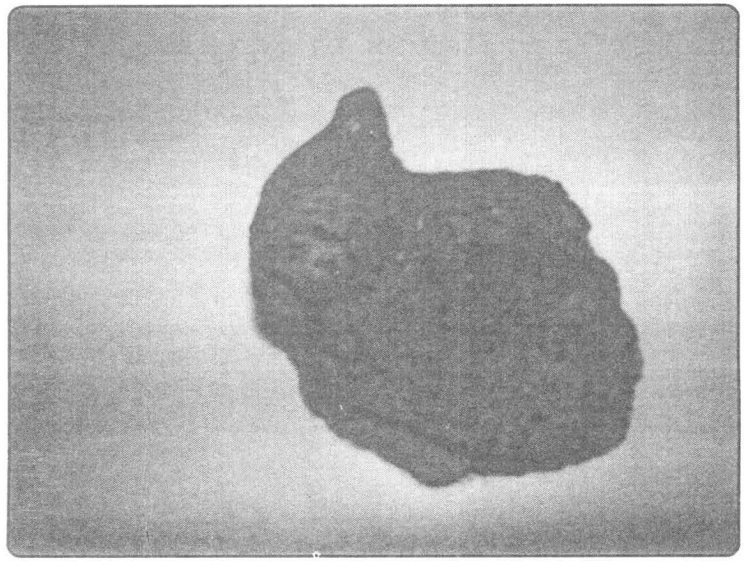




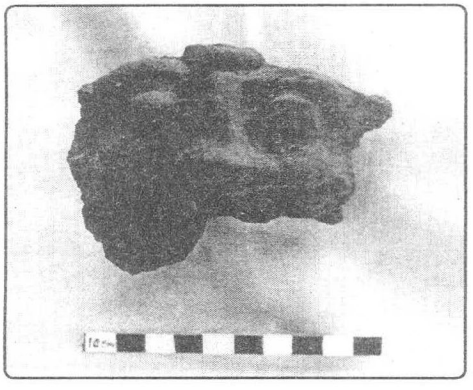
Terracotta Figurines

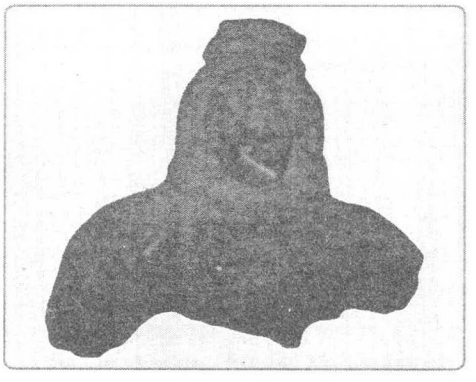


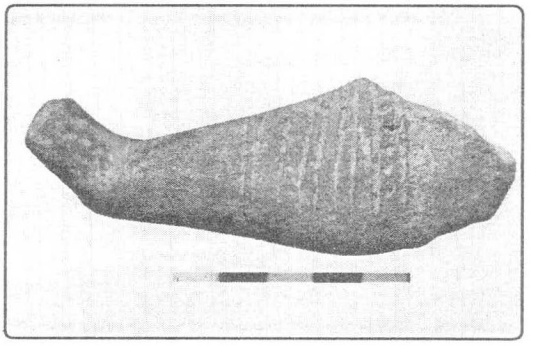


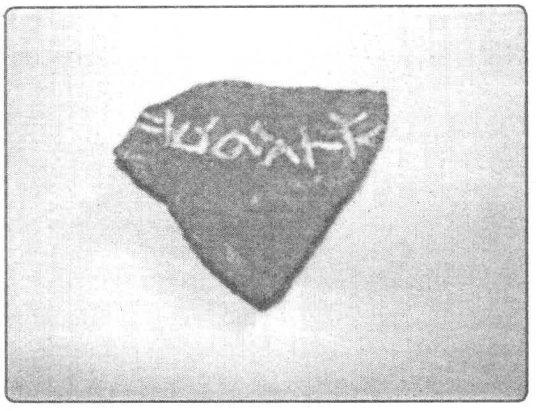


Terracotta Figurines

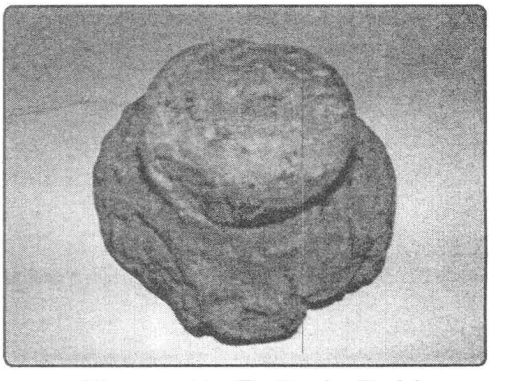




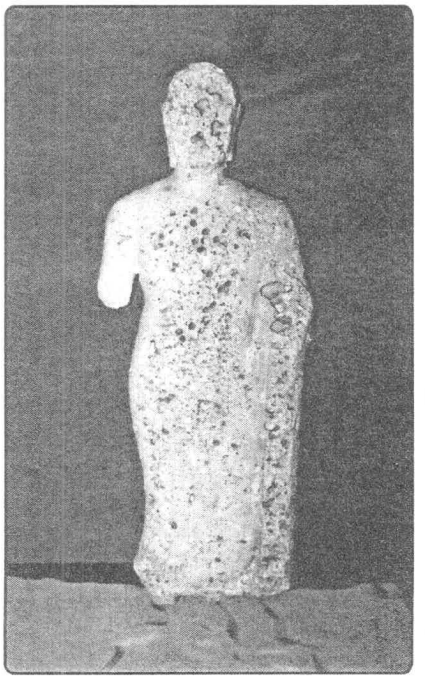




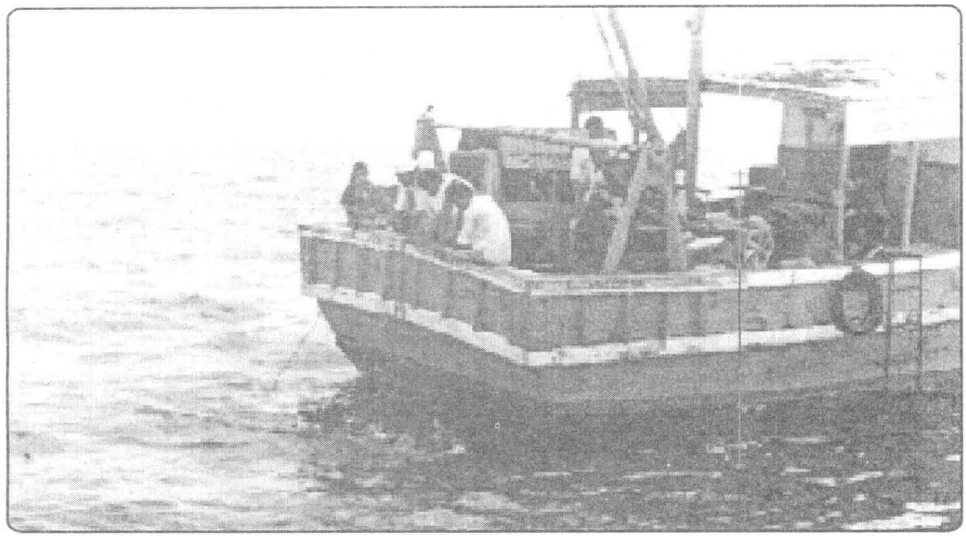
Inscribed Sherd



Terracotta Potter's Dabber



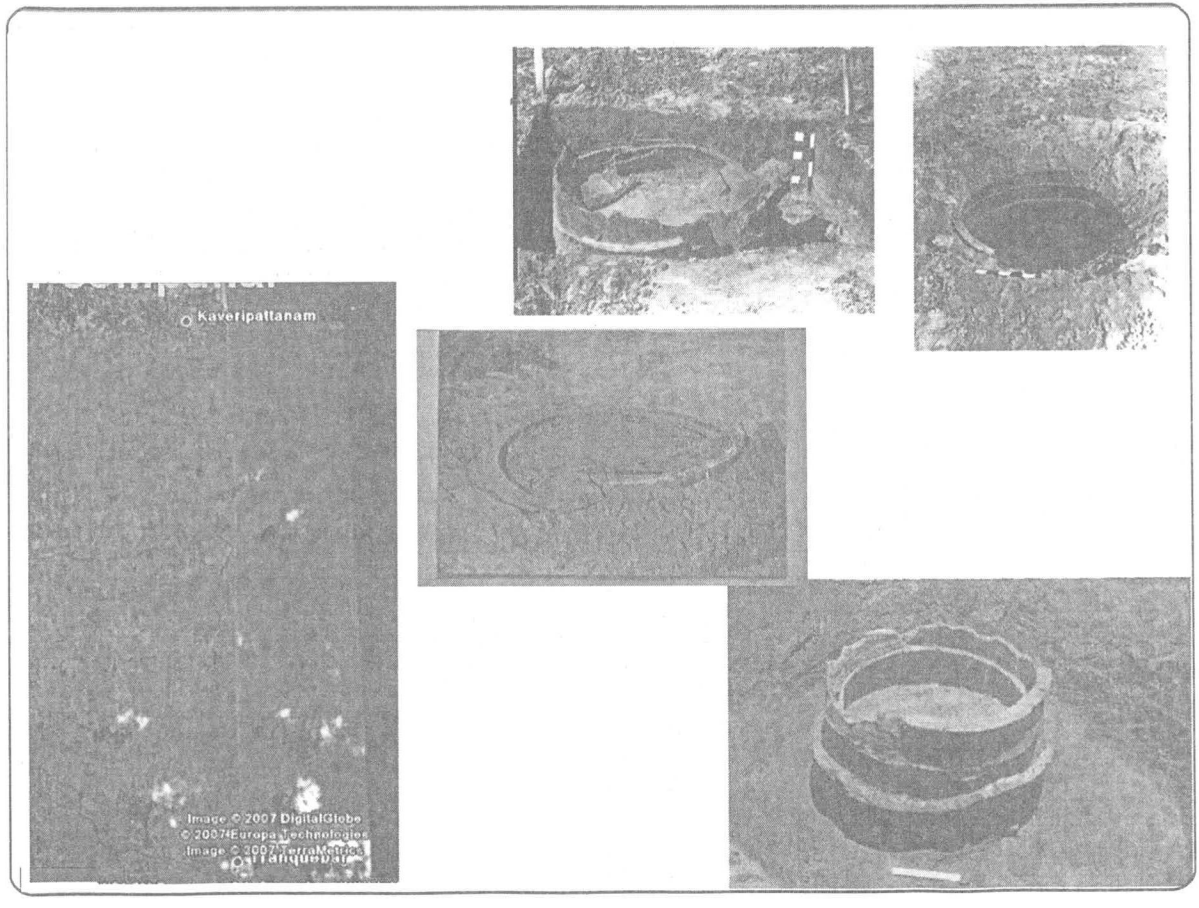
Chinnamedu Buddha Sculpture
Poompuhar



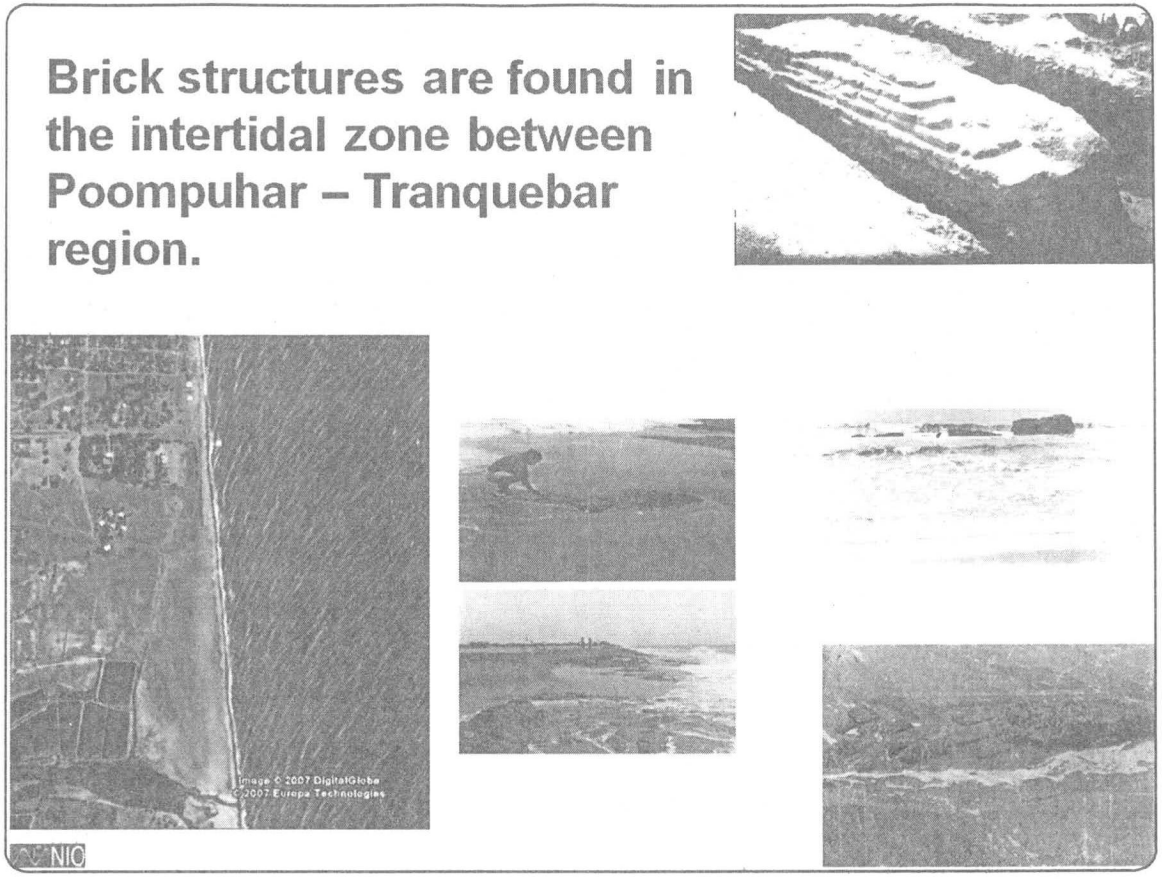
Vessel used for Under Water Exploration / Excavation



Under Sea Explored Site



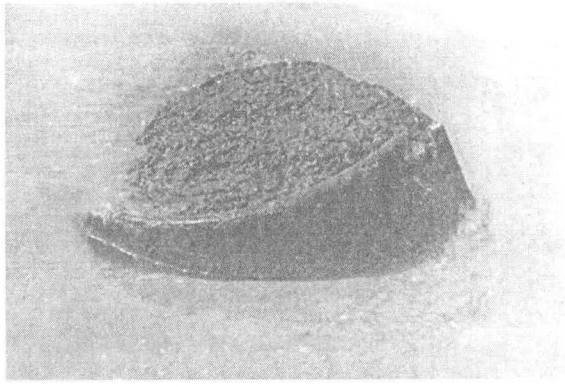
Explored Terracotta Ring Wells

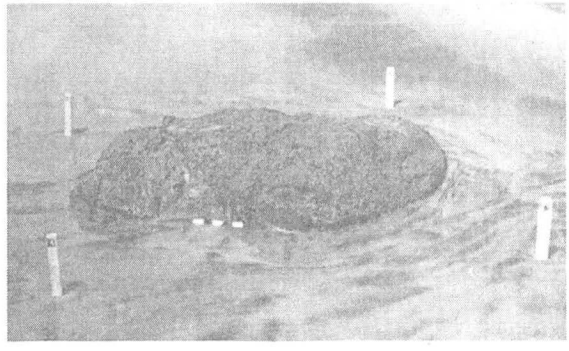


Brick structures found in the intertidal Zone between Poompuhar - Tranquebar

Storage jars found in the Intertidal zone at Vanagiri.







Storage jars found at Vanagiri

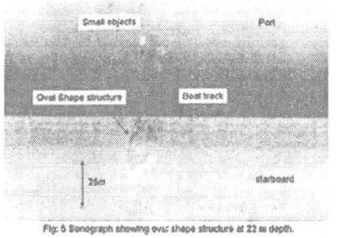
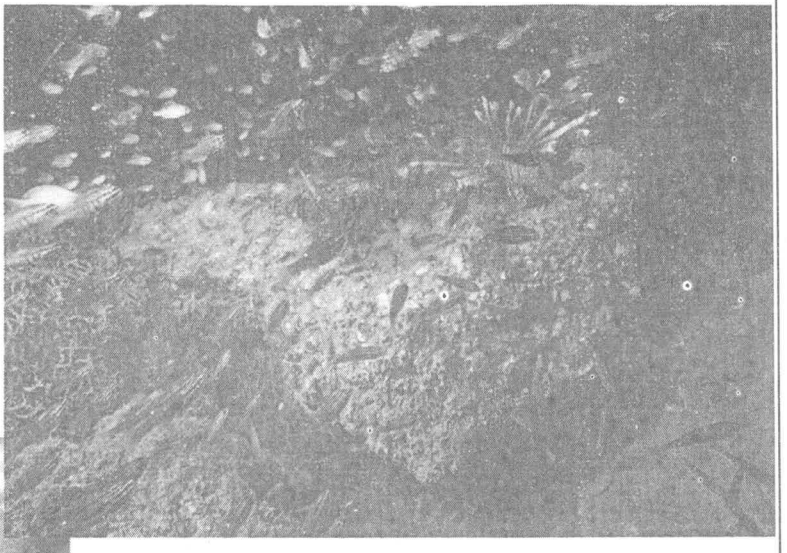


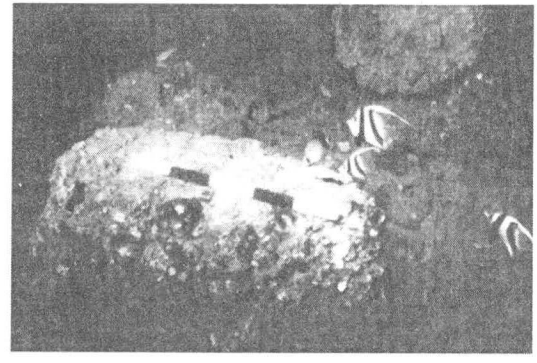
Fig: 6 Sonograph showing oval shape structure at 22 m depth.

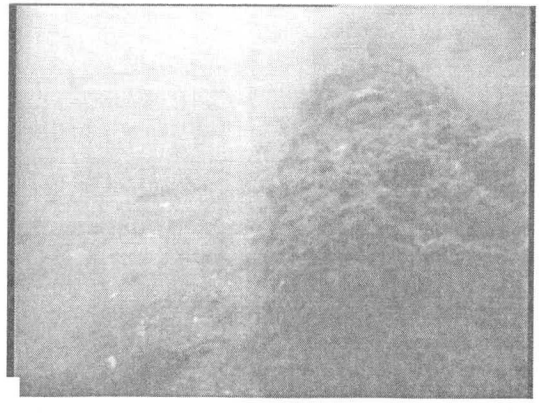


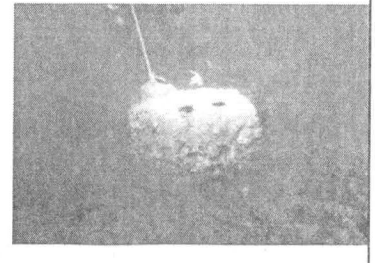


- An oval shape structure was found at 23 m water depth.
- Two small structures were found about 40 m northern side of oval shape structure.

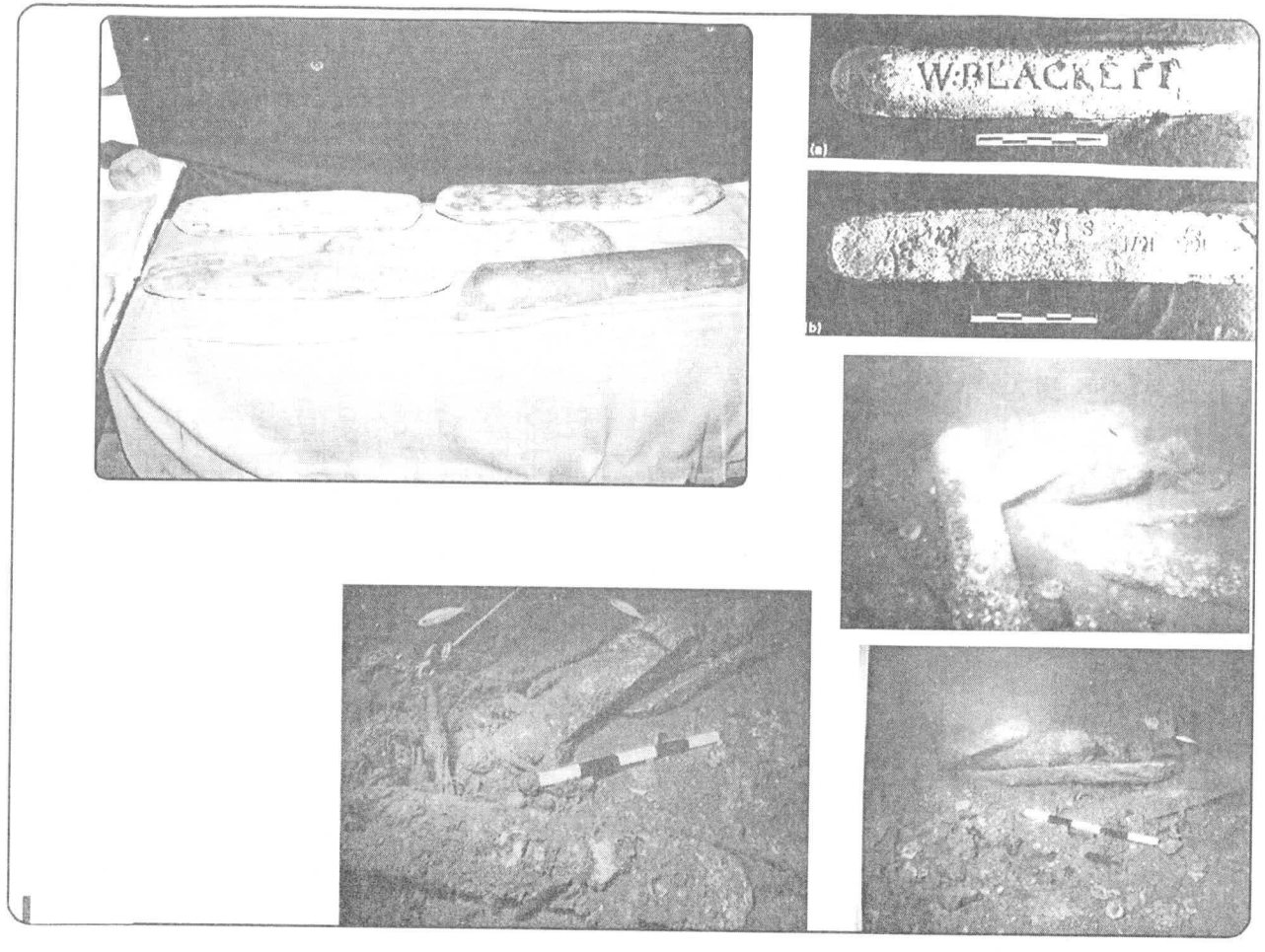
Shipwreck at Poompuhar



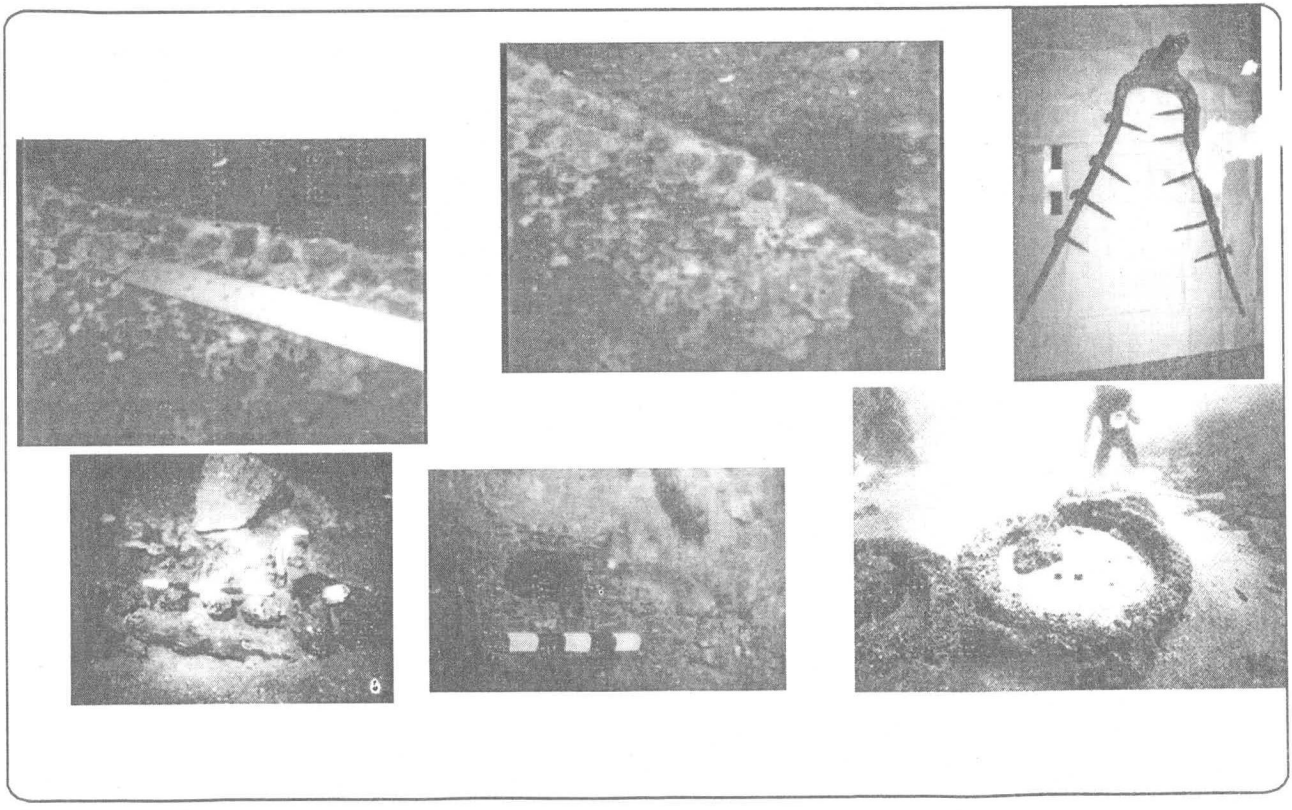




Shipwreck at Poompuhar



Lead Ingots



Inside the shipwreck



GOVERNMENT OF TAMILNADU
DEPARTMENT OF ARCHAEOLOGY
CHENNAI - 600 008
2011