

Excavations of Archaeological Sites in Tamil Nadu

# **MANKULAM**

(2006 - 2007)

General Editor

**Dr. Sitharam Gurumurthi, IAS**

Principal Commissioner

Department of Archaeology, Government of Tamil Nadu, Chennai - 8.

**2008**



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IN TAMIL NADU**

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## PREFACE

The Tamil Nadu State Department of Archaeology was started with the aim of conservation and preservation of ancient monuments in Tamil Nadu and to conduct excavations at historical sites. With the motivation to bring out the cultural history of Tamil Nadu, it has identified and carried out excavations in various historical places. It has so far excavated 31 sites and unearthed various artifacts.

In the year 2006-2007 the Department carried out excavation at Mankulam in Madurai district and Nedunkur in Karur district at a cost of Rs.5.00 lakhs sanctioned by the Government of Tamil Nadu. Mankulam village is known for its Tamil Brahmi inscription, which mentions about the Pandya king Nedunchezhiyan of Sangam period.

I appreciate the sincere efforts taken by the officials of the department particularly Dr. C. Santhalingam, and Mr. S. Selvaraj, Archaeological Officers and the supervision of the work was by Dr. N. Marxia Gandhi, Deputy Superintending Archaeologist. Contour Survey and the drawing of the trenches were prepared by the conservation section officials Mr. R. Narayanan, Mr. T. Thangavelu, Mr. K. Olimolik, and Mr. M. T. Sridharan, for photographs. Dr. S. Vasanthi, Archaeologist took keen interest in bringing out this report. I hope this publication will be appreciated by the scholars in the field of archaeology and history.

SITHARAM GURUMURTHI  
Principal Commissioner



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## A GLIMPSE OF MANKULAM HISTORY

Madurai, is one of the ancient cities in India that enjoyed a continuity in the history from Pre-historic times. Due to its cultural prominence, Madurai is described as “The Athens of South India”. It is also well known as a great centre for learning from very early times. As the seat of the Tamil academy called the Sangam, it wielded great influence in the literary and cultural fields. During the glorious rule of Pandyas, Madurai had overseas connections for both commercial and cultural activities.

Some tools were collected by Robert Bruce Foote, on the left bank of the river Vaigai, immediately north of Madurai city and also a single Paeolithic tool from Aviyur, about 20Kms south of Madurai. The archeological explorations revealed about ten sites belonging to the late stone age and neolithic antiquities.<sup>1</sup> About 60 sites with megalithic cultural materials have been identified in Madurai district.<sup>2</sup>

Madurai was the capital city of the Pandyas of Sangam period and continued to enjoy its glorious rule even in later periods. Madurai country and the Pandyas find mention in the epics - Ramayana and Mahabharatha. When enlisting the kingdoms to the south of the Vindhya, the poet Valmiki included the kingdoms of Pandyas along with the Andhras, the Pundras, the Cholas, and the Keralas. In the Mahabharatha also there are many references about the Pandyas. A Pandya king was said to have been present at the swayamvara of Draupadi. A mention of the king is available in the great Bharata battle<sup>3</sup> in a way of providing food to the two armies.



Katyayanana, the famous grammarian of 4<sup>th</sup> century B.C., mentioned about the regions of Pandya, Chola and Kerala of Southern India. The Arthashastra of Kautilya, while describing the trade between Northern and Southern India, spoke about the pearls and muslins of the Pandya country. The astronomer Varahamihira referred the Pandya kingdom in his Brhatsamhita. Kalidasa, the great Sanskrit poet and dramatist referred the Pandya kingdom as one of the provinces visited by Raghu during his tour of conquest.

The Pandyas and their capital city Madurai were well known to the Ancient Greeks and Romans, Megasthenes, the Greek ambassador of Seleukos Nikator at the court of the Chandra Gupta Maurya (320 B.C.), in his accounts gave a vivid picture of a South Indian Kingdoms. Strabo (C.25.B.C.) stated that a Pandya king sent an embassy to the Roman Emperor Augustus. Pliny (C. 75 A.D.) mentioned about the Pandya, king Pandya and his capital Madura. Ptolemy (C.130A.D.) also referred Madurai as the royal city of the Pandyas.

The earliest datable Ashoka's rock edicts Nos.2 and 13 mention the South Indian kingdoms viz, Chola, Pandya, Satyaputra and Keralaputra. The contemporary lithic records found at some villages around Madurai (Tamil Brahmi inscriptions) bear references to Madurai city as well as Pandya kings.<sup>4</sup>

### **Jainism in Madurai**

It is stated that Jainism spread to South India by the migration of Jain followers under the leadership of saint Bhadrabahu who settled at Sravana Belagola in Karnataka. The subsequent movement to the Tamil area is believed to have been led by one Vishvakacharya. The team headed by Vishvakacharya might have reached deep south up to Madurai through Kongu region. Madurai



and its surroundings were very suitable for the jains for their secluded life and practices. They selected natural rock shelters for their stay around Madurai. Atleast fourteen such centers around Madurai were located<sup>5</sup> in which polished rock beds were carved. All these rock caverns have early Tamil (Tamil -Brahmi) inscriptions which may be dated to 300 B.C. to 300 A.D. The earliest among them is at Mankulam village which have five natural caves and six inscriptions.

### **Importance of Mankulam**

Mankulam village lies at a distance of 20Kms north east of Madurai and 10Kms west of Melur town. It is a fertile village, full of paddy fields irrigated by river Periyar channels. This village is well connected by buses from Madurai. At the outskirts of this village, there is a hillock called Kalugumalai also called as Ovamalai. At the terrace of this hill in the five natural caves the early Tamil rock bed inscriptions (சமணப்படுக்கை) of Jain settlers are noticed. The local people refer to this as Pancha Pandavar padukkai.

Some cave inscriptions at Mankulam were first noticed in 1882 by Robert Sewell. Later during 1906 these inscription sites were revisited by Francis and K.V. Subramanya Iyer. Some more inscriptions were observed at Mankulam in the year 1906 and 1964. So, totally six early Tamil-Brahmi inscriptions from four different caves were discovered at this hill. These inscriptions are considered as the earliest epigraphical findings of Tamilnadu and dated back to 3<sup>rd</sup> century B.C. which provide much valuable informations about the Sangam period Pandyas.

The first inscription engraved on the brow of the upper southern cave known is as the 'kitchen' on the Kalugumalai hill. It is a noteworthy record running as a single line - length of 564 cm.



### Reading of the 1st Inscription

கணிய் நந்த அஸிரியஇ குவ் அன்கே தம்மம்

இத்தாஅ நெடுஞ்சழியன் பணஅன் கடல்அன்

வழுத்திய் கொட்டுப் பித்தஅ பளிஇய்'

The above epigraph mentions - a charity given to Nanta-Srikuvan, the *kani* (a Jain monk). The hermitage was made by Katalan Valuti, the servant of Netuncaliyan. This record may be dated to 3<sup>rd</sup> century B.C.

### Reading of the 2nd Inscription

கணிய் நந்தஸிரிய் கு அன் தமம் ஈதா நெடிஞ்சழியன்

ஸாலகன் இளஞ்சடிகன் தந்தைய சடிகன் சேஇயபளிய்

This inscription narrates about the charity given to Nanta Srikuvan, the *kani*. The hermitage was made by Catikan the father of Ilancatikan, Netincaliyan's sister-in-law's husband.

### Reading of the 3rd Inscription

கணிஇ நதஸிரிய குவ(ன்) வெள் அறைய நிகமது

காவிதிஇய் காழிதிக அந்தை அஸுதன் பிணஉகொடுபிதோன்

It means that one Antai Assutan the pearl merchant who received the title Kaviti at the merchant guild of Vellarai, made donation of the Jain bed to Nanta Srikuvan, the Kani.

The above mentioned three inscriptions may be included in a single group. In all these three inscriptions the name Kani Nanta Srikuvan is being



mentioned. Kani is a transformed word from Prakrit and Sanskrit Gani, meaning, a senior Jain monk, who was head of a group of monks known as Gana. Nanta Srikuvan, was the recipient of the gift of the hermitages recorded in these inscriptions. Nanta Sri appears to be the monastic name assumed by the monk and Kuvan, his original Tamil name before his assumption of the monkhood or possibly the clan name, indicating his Tamil origin.<sup>6</sup>

The name, Netunceliyan is referred in two inscriptions. He was most probably the reigning king of the then Pandyas though the dynastic name Pandya is not mentioned in the inscriptions. This may be confirmed as the name Netunceliyan belongs to only the Pandya dynasty and that one of the donors, probably a vassal or Kinsman, is named Valuti (வழுதி), another characteristic dynastic name of the Pandyas. The proximity of Mankulam to Madurai, the capital city of the Pandya kingdom, makes it also a proof of certainty of these records belonging to the Pandya king of that time.

Two Pandya kings in the name of Netunceliyan are referred in the Sangam literature.

1. Netunceliyan 'the conqueror of the Aryan armies',
2. Netunceliyan 'the victor of Talaiyanan kanam'

It has been suggested that Netunceliyan of the Mankulam inscription may be identified with either of them. However, from the well established Gajabhu synchronism that Netunceliyan I was a contemporary of Ceran Cenkuttuvan of Chera dynasty and Gajabahu I of Srilanka and hence must be assigned to the 2<sup>nd</sup> century A.D. Netunceliyan II was a contemporary of Mantaran-ceral Irumporai and lived still later. The early paeleography and archaic orthographic



and linguistic features of the Mankulam inscriptions indicate a much earlier date (ca 2<sup>nd</sup> century B.C). The proposed identification is thus unlikely. It seems more likely that Netun celiyan of the Mankulam grants lived much earlier than his namesakes and descendants celebrated in Sangam literature.

In the third inscription Vellarai Nigama is mentioned. Vellarai is a village situated just 3 kms south of Mankulam hill. Nigama means a mercantile guild. One member of this guild had been bestowed Kavithi title.

The sixth inscription reads as,

‘Vel arai Nigamathor Kodior’

From the sixth inscription it is presumed that not only the kavithi, the head of this Nigama, but the whole merchant community (guild) was involved in the charity to the Jains.

The fifth inscription reads as ‘Cantaritan kotupiton’ which denotes that one Cantaritan, made this charity. This Cantaritan might have been a noble personage who could afford such a gift. The fourth record acknowledges the name of the engraver ‘Kaniy nattiy Kotiyavan’.

In all these five rock caves about eighty stone beds were carved for the residence of the Jain monks. On the ceiling portion of the first cave, traces of pre-historic paintings are also noticed which suggest that earlier the caves were occupied by the Pre-historic people.

Alagarmalai lies at 10 kms from this Mankulam hill and was also occupied by the early Jain monks. About a dozen Tamil-Brahmi inscriptions are noticed here, wherein some of the names of the merchants are inscribed. Arittapatti, another ancient village is located at 4 km. distance to the east of Mankulam. Two early



Tamil Brahmi inscriptions are discovered at this village in a natural cavern. This cave was also a hermitage of the Jain monks carved by the Pandya kings of the Sangam age. Mankulam caves were not continuously occupied by the jains after Sangam period. However Arittapatti cave was occupied by the jains even during 9-10<sup>th</sup> century A.D. where a Vattaluthu inscription and a bas-relief sculpture of Mahavira are seen. Name of the village Arnittapatti is derived from the jain Arittanemi, a popular jain monk. But no recorded evidence for the existence of this name is so far known. During 9-10<sup>th</sup> century A.D. this village was named as Pathirikkudi, and was visited by Accananthi, a jain monk who was responsible for the rejuvenation of Jainism, around Madurai at that time.

One early Pandya cave temple is also exquisitely carved at this village which is now named by the locals as Idaichi mantapam. On one of the niches, one bas-relief sculpture of Lakulisa deva is carved which is a rare specimen of its kind in Tamil Nadu. During later pandya period one Siva temple was constructed. The inscription engraved on the base of this Siva temple (now completely ruined) is dated to the Jatavarman Vikrama Pandya (13<sup>th</sup> century A.D.) The name of this village is mentioned in this record as Pathirikkudi alias Ainnuruvaperuntheru. Ainnuravar was a popular mercantile group in Tamil Nadu during the 10-13<sup>th</sup> century A.D. which also had its stronghold in Arittapatti. So, this village had continuous mercantile activities from 3<sup>rd</sup> Century B.C. to 13<sup>th</sup> century A.D. All these villages Alagarmalai, Mankulam, Vellarai and Arittapatti might have been enroute to the ancient trade route connected with Pandya and Chola capitals Madurai and Uraiyur respectively.

In between Mankulam village and Kalugumalai, one small hamlet with about fifty huts is created in recent years (about a span of 50 years) and it is



named as Meenakchipuram. Just 2 kms distance from Mankulam to Meenakchipuram another small hamlet is located and is called as Paramudaiyanpatty. In this village on a natural rock, an early Pandya rock cut temple is carved and left unfinished. Only the mukhamantapa, with two pillars and two pilasters is carved just like the caves at Arittapatti and Anaimalai ,but garbhagraha is not carved. The date of this unfinished rock cut temple may be fixed safely 8-9<sup>th</sup> century A.D. having similarity to the Arittapatti and Anaimalai caves. No sculptural representation or inscriptional evidence is noticed in this unfinished work, yet it remains as an evidence for the early religious activities of the early Pandyas in this region. There is no evidence for the continuous occupation of the people in this region after 8-9<sup>th</sup> century A.D.

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3. Devakunjari, D. Dr ., 2004, Madurai through the Ages. p.22, SAHER
4. Mahadevan Iravatham, 2003, Early Tamil Epigraphy, from the earliest times to the 6<sup>th</sup> century A.D.
5. Madurai Mavatta Tholliyal Kaiyedu, 2005, p. 176, TNSDA
6. Mahadevan Iravatham, 2003, Early Tamil Epigraphy, from the earliest times to the 6<sup>th</sup> century A.D., p. 543



## TRENCHES

Archaeological excavations were undertaken at Mankulam to examine the Archaeological potentialities of this area and it was necessary to find out the earlier culture and periodical stratigraphic evidence of this region. For that an intensive contour survey was made at the bottom portion of the Meenakchipuram hillock and the North east of the village. The area was surveyed in three sectors. One at the North east of the hillock and the another one in North east corner of the village and the last one on the top of the hillock. On the top of the hillock we planned two trenches. The total excavated area was 89 sq.mts. In the bottom of the hillock two trenches were laid, measuring 32sq.mts Actual excavation was conducted in the year 2007. Totally four trenches were laid in Mankulam (Meenakchipuram); Two in the bottom portion of hillock and another two on the top of the hillock. All were laid in the habitational area. The trenches were abbreviated shortly as MKM for Mankulam.

The antiquity of Mankulam goes back to the Microlithic age. But unfortunately we found only one tool from the trench. However Madurai and its region comes under microlithic age. Few microlithic sites were located in and around Madurai region.

### MKM I

First trench was laid in the northern side of the village at the foot hill of the Meenatchipuram hillock. The trench measuring 4×4mts, had revealed only one layer, with 0.60mt thickness and loose, soil Grey in colour mixed with a few rimless pot sherds and crystal pieces. One copper coin was unearthed at the depth of 0.25 mts. It was highly corroded. It may be dated to 13<sup>th</sup> century A.D. of Pandya dynasty. A broken crucible pot portion was also noticed at the depth of 0.50mts. A microlithic tool was unearthed at the depth 0.60mts, in which working edge was clearly seen.



Only one tool was noticed. This tool is called as 'scraper'. Few laterite stone pieces were seen in this level. Below this level, pot sherds and antiquities were completely absent. In this trench the virgin soil was found at the depth of .60mts.

## **MKM II**

It was marked at the eastern side of the Meenakchipuram village near Kalaiyarangam. (auditorium). It was laid in east west orientation and measured 4×4mts. A single layer was noticed in this trench and was dug up to 0.50mts. Coarse red ware and red slipped ware were found. Two terracotta portion of a well were obtained at the depth of 0.25mts. Natural soil was reached at the depth of 0.50cms.

## **MKM III**

It was laid on the top of the hillock very near to the entrance of the cave having the remarkable Tamil Brahmi inscription. It was measured 8×8 mts. Large number of bricks and brickbats were scattered and accumulated in this area. So the area was cleared and marked for laying the trench. At the depth of 15cm a brick pavement was noticed in the top most portion of the northern side of the trench. This pavement was running throughout the trench. Few bricks seemed to have been removed or disturbed by natural causes or by human intervention.

A brick structure was exposed in this trench, running in south west - north east direction. In the north east corner it joined a pavement, running east west. But both the pavement and the brick structures were highly dilapidated.

Totally eleven coarse of bricks were exposed. Height of the structure measured 0.90mts and the breadth 1.10mts. Major antiquities of this trench were brick structure grooved tiles, black and red ware, all black ware, red slipped ware and iron nail etc.



## **MKM IV**

This trench, measuring to 4×4mt was laid on the top of the hillock at the bottom of the cave where the Tamil Brahmi inscription of Pandiyan Neduncheliyan was engraved on the ceiling of the cave. This cave also has number of beds. Some traces of red ochre coloured paintings are found on the ceiling but it is not legible.

A brick structure was noticed in the north east corner of the trench. Large number of brick bats and few potsherds, like black and red ware all black ware potsherds were found in this trench. The exposed structure was not continued on either side of this trench.

Large number of grooved tiles with lime mortar, potsherds. Brick structure were seen in the south east corner and north east corner and also two coarse of bricks were running at the centre of this trench. There is no continuity of the structures and also there is no link with one structure to another.

The antiquities such as grooved tiles, potsherds, different sizes of iron nails, lime mortar pieces and loose bricks etc., were found in this trench.

Two layers were noticed. The natural soil is seen at the depth of 1.35mts.

## **Cultural Sequences and Chronology**

Four trenches were laid at Mankulam. Two of them were at the foot hill of Meenakchipuram Ovamalai and the another two trenches were laid at the top of the hill. These trenches were laid near the place where the ancient Tamil Brahmi inscriptions are present.



Study of the stratigraphy, potsherds, coin other minor antiquities and the buried structures reveals two successive occupational periods. The trenches at the foot hill belongs to one period and the trenches at the top of the hill belongs to another period.

On the top of the hillock a buried structure with large number of grooved tiles and broken potsherds with Iron nails was exposed. The bricks used in this structure measured about  $35 \times 17 \times 6$  cm. Large heap of loose bricks were nearby. From this it can be inferred that this structure might have been destroyed due to natural causes.

Based on the study of the brick structure size of the bricks, grooved tiles and the potsherds such as black and red ware and few iron nails it can be dated to 300 BC, contemporary to the Tamil Brahmi inscriptions.

The other antiquity obtained in the trenches laid at the foot hills was a microlithic scrapper tool, found at the depth of 0.60mts, ie., three dimension measurement for the tool is  $2.30 \times 0.90 - 0.60$  mts. In association with crystal stone pieces and other small stone pieces were recovered. But only one tool was seen inside the trench. Hence it was not to be taken into account for assessing the cultural sequences. Sand gravels and the stone pellets were seen in this trench.

One copper coin was noticed at the depth of 0.25mts. Three dimensional measurement were taken -  $0.80 \times 1.10 - 0.25$  mts. One sling stone was also collected in association with the coin. The diameter of the copper coin is 1.6m.m and it is highly corroded. After the chemical cleaning it was identified as the later Pandya coin.



Based on the study of the stratigraphy exposed brick structure, size of the bricks grooved tiles and potteries and other minor antiquities like Iron nails, coin etc. two successive occupational periods are determined in Mankulam excavation.

|           |                              |   |                               |
|-----------|------------------------------|---|-------------------------------|
| Period I  | 3 <sup>rd</sup> century B.C. | - | 3 <sup>rd</sup> century A.D.  |
| Period II | 4 <sup>th</sup> century A.D. | - | 14 <sup>th</sup> century A.D. |

## Period I

Mankulam excavation has revealed two cultural periods. They are arrived on the basis of unearthed brick structure and associate findings. It is observed that the habitation of the site commences from 3<sup>rd</sup> century B.C. and continued up to 14<sup>th</sup> century A.D.

From the unearthed antiquities like grooved tiles with lime mortar, iron nails, bricks and black and red ware, black ware and red ware potsherds, it can be assumed that they might have belonged to the Sangam period. The method adopted for the construction of the brick structure usage of lime mortar as binding materials and the occurrence of grooved tiles reveals the fact that the unearthed brick structure may be dated 3<sup>rd</sup> century B.C.

The pottery of that periods occurred during this excavation are black and red ware, red slipped ware all black ware coarse red ware Red slipped ware and iron nails. They occur in all the places corresponding to iron age period and also to the early historic period settlements found in South India, i.e, 3<sup>rd</sup> century B.C. to 3<sup>rd</sup> century A.D.



Less number of potsherds are collected in this excavations .The trenches MKM III & MKM IV belonged to this cultural periods.

## **Period II**

The antiquities belonged to this period are the copper coin of later Pandya period, a few coarse variety of black and red ware, coarse red ware, red slipped ware, and a few decorated pot sherds. The trenches MKM I & II belongs to the Second period, datable to 4<sup>th</sup> century. A.D. to 14<sup>th</sup> century. A.D.

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## **BRICK STRUCTURE**

A brick structure exposed in the trench III was located at the top of the hillock and very near to the jain beds. The brick structure was measured 6mt length and 1.10mt breath. A single wall - running north to south. Total height of the wall was measured 0.90 mt. Totally eleven coarse of bricks were exposed. This wall is associated with the pavement of bricks. Nearly 24 bricks were used on the floor like pavement. This may be the floor level of this buildings. The wall is running adjacent to this pavement. The other side of the walls were completely dilapidated by nature or by some brick robbers.

### **Technique of Construction**

The method of construction used was 'Header and Stretcher'. By this method the ancient buildings were constructed by the people, as strong and stable buildings. They had used clay as binding material for this construction. They had used burnt bricks for the foundation.

In the Header direction they had used 20 bricks and in the stretcher side they had used only 12 bricks, interlocked one row with another row; the size of the bricks were large. This type of bricks were used in ancient period.

This structure was also constructed during the period of jains, who settled in the cave near this site. They chiselled their beds on the caves for their stay. The open hall exposed by our excavation might have been used as a meeting hall or prayer hall. The associated findings like grooved tiles, Iron nails, black and red wave potsherds provide ample evidence to understand the method of construction.

We have exposed two structures at the top of the hillock, one at Trench III, the another one at Trench IV. Both were exposed near the jain's residential cave.



In the trench III a pavement with a basement wall was exposed But in the trench IV we exposed a tiny wall with two coarse of bricks and lime mortar pieces with large number of grooved tiles and different size of Iron nails. Nearly more than 80 beds were seen on the top of the hillock caves. So this may be a big and earliest jain centre of this region during that period.

### **Grooved Tiles**

Houses were built with bricks with the roof supported on wooden rafters and covered with grooved tiles wooden rafters and grooved tiles were fixed with iron nails.

These grooved tiles are rectangular in shape. These tiles have a groove at one edge and its ends to the upper surface, and a groove at the other edge on the lower surface of the tile with two circular holes at the top. Few tiles have a single hole on the top. The lower edge is thin and semicircular in shape. These tiles might have been used in the steeples like shopping roofs. Tiles would be arranged in a row by placing one on the other on the grooves. It might be tied with wooden rafter by coir rope through the holes. This type of tiles are obtained from various sites. These tiles are measured 20cm length and 12 cm breadth 3cm thick.

### **Bricks**

Large number of loose bricks were unearthed in this excavation It was measured 35×17×5.5cm 2. 35×18×6cm 3 36×19×7cm. These three sizes of bricks were frequently used in this structure.

The size of the bricks was very large. These type of bricks were found used in the early periods in some other sites also. So it may be dated to the period - I



## POTTERIES

Clay is the most abundant of all materials which mother nature has bestowed. It has the quality of retaining shape when the potteries are made. In the beginning pottery was made with the hand and the invention of wheel and the man's knowledge to use the fire for making clay potteries resulted in skillful artifacts.

In Mankulam excavation potteries of Sangam period were found in considerable number. The dominant ware of this excavation is black and red ware, all black ware, coarse ware, and red slipped ware with decoration.

### **Black and Red Ware**

The black and red ware sherds are of dull polished and well burnished surface. They are made out of well levigated clay without salt glazing. People had used inverted firing technique for the black and red ware sherds. The pots are kept inverted in the kiln. Due to this the interior and the portion around the neck are burnt under reducing condition and become black while the outer and exterior red in colour.

Bowls, lids, vase, plates etc. are called as table wares; Small vessels without rim were also collected.

### **All Black Ware**

All black ware was almost identical in texture to the black and red ware. The all black ware surface was recovered through firing under a completely reducing condition. This variety of sherds occurred in the megalithic periods. The vessels collected were of small size. Broken pieces of cup, bowl, and lids were collected in Mankulam excavation.



## **Red Slipped Ware**

The red slipped ware was well fired and polished. This ware was collected from number of sites in Tamilnadu. and recognized as the most important ceramic of the megalithic and early historical period. Only a few sherds of such collection being obtained here.

## **Coarse Red Ware**

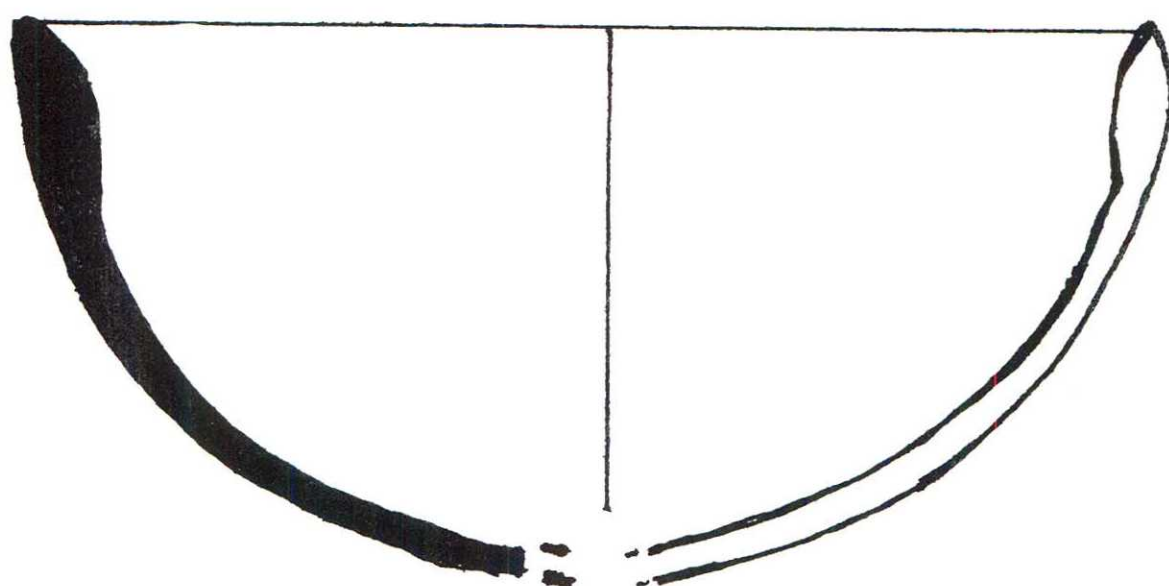
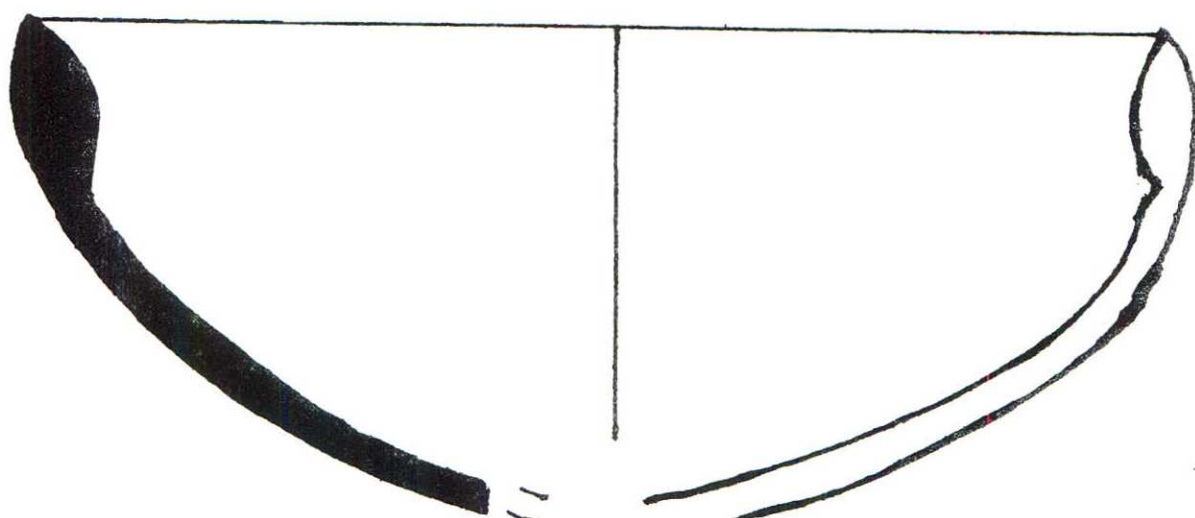
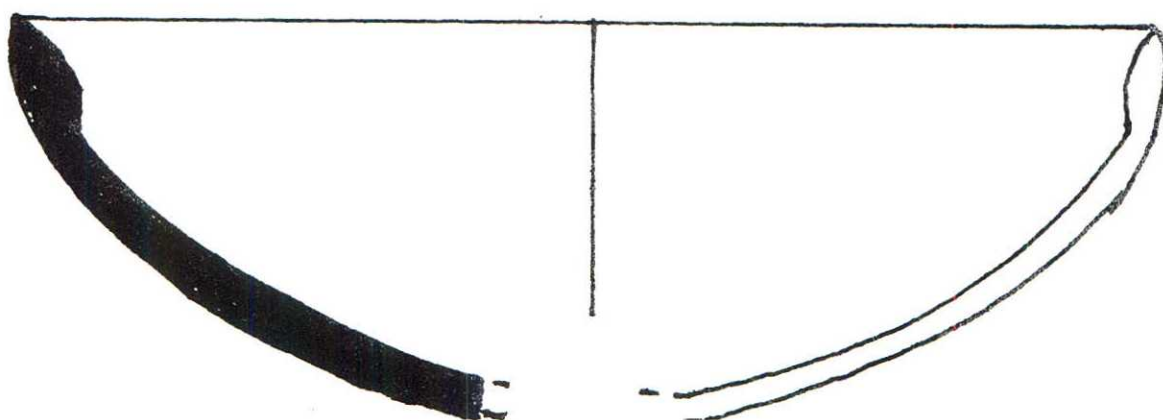
The needs of the daily usage vessels for cooking and storing - lids, bowls large shallow basins etc. with thick rim were collected. Deep bands of grooves and nail incisions were seen as a decoration on the shoulder.

This ware is the predominant variety found in large number in all levels of excavation conducted in Tamilnadu. These type of pots are having thick and handle like rim portion for their easy utility. Only a few pot sherds with decoration were collected in the excavation. It denotes the artistic instinct of our ancestors. It might have been used as a ceremonial pot. These were the important potteries collected in this excavation.

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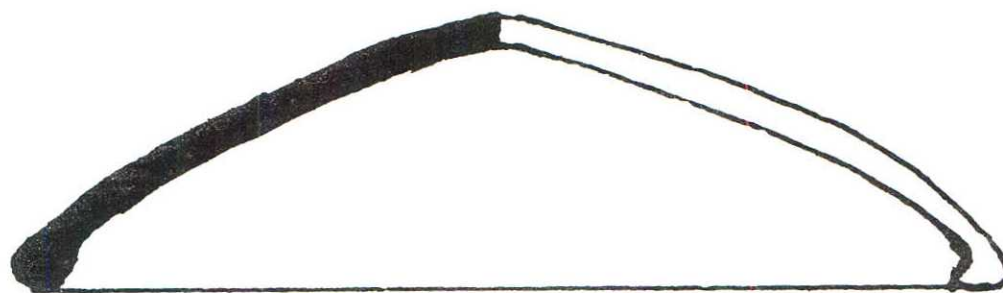
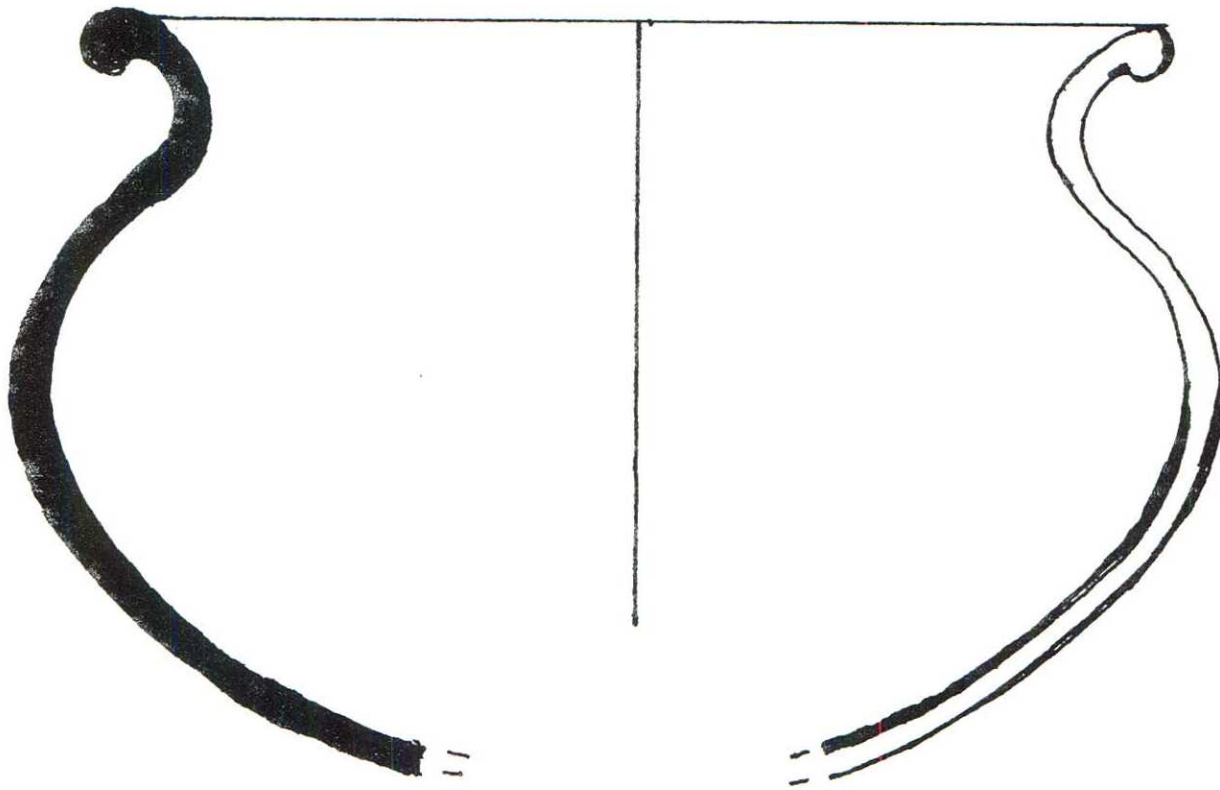


## BLACK AND RED WARE



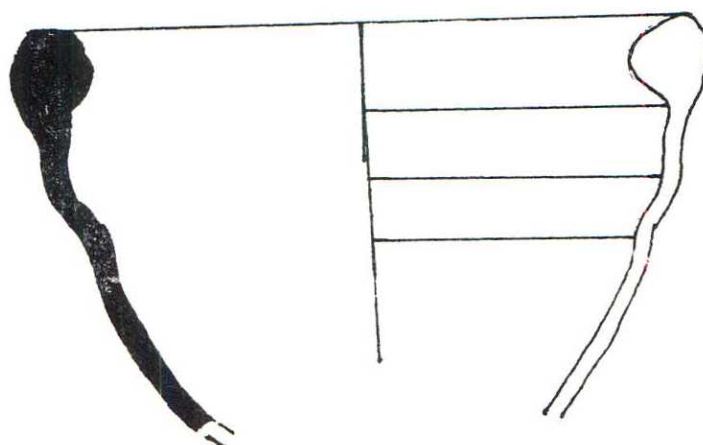
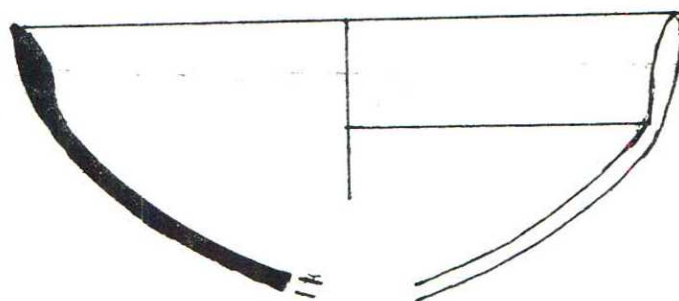
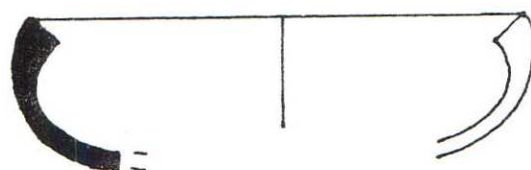
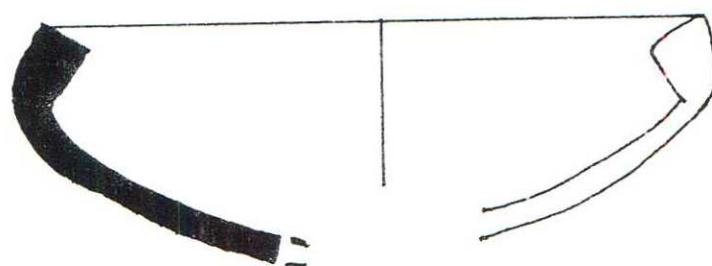
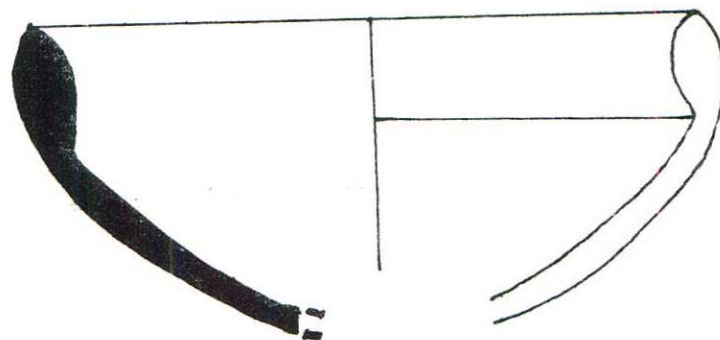


# ALL BLACK WARE



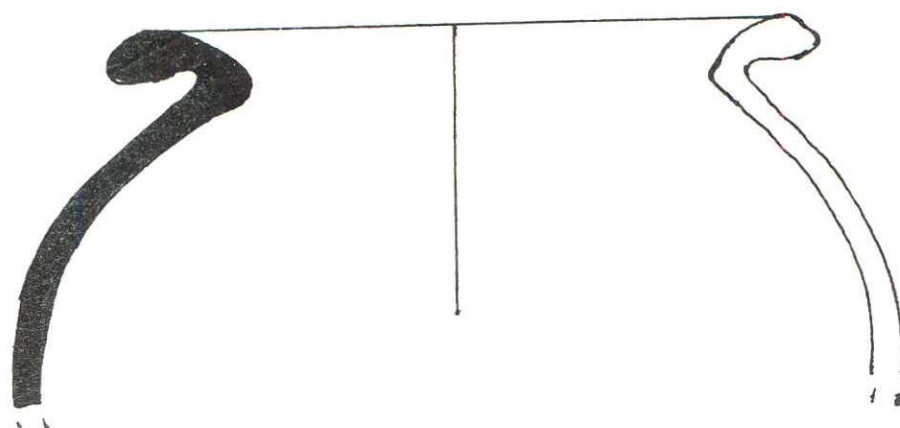
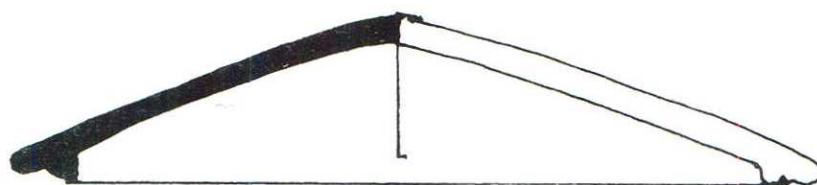
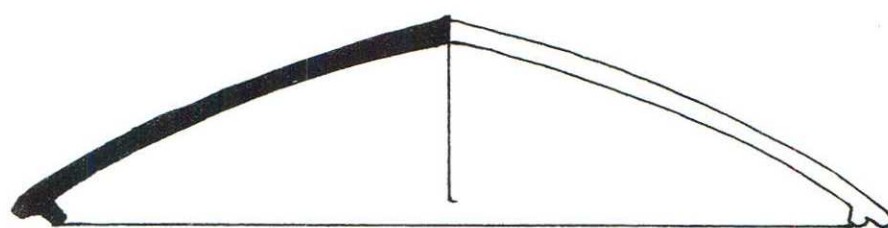
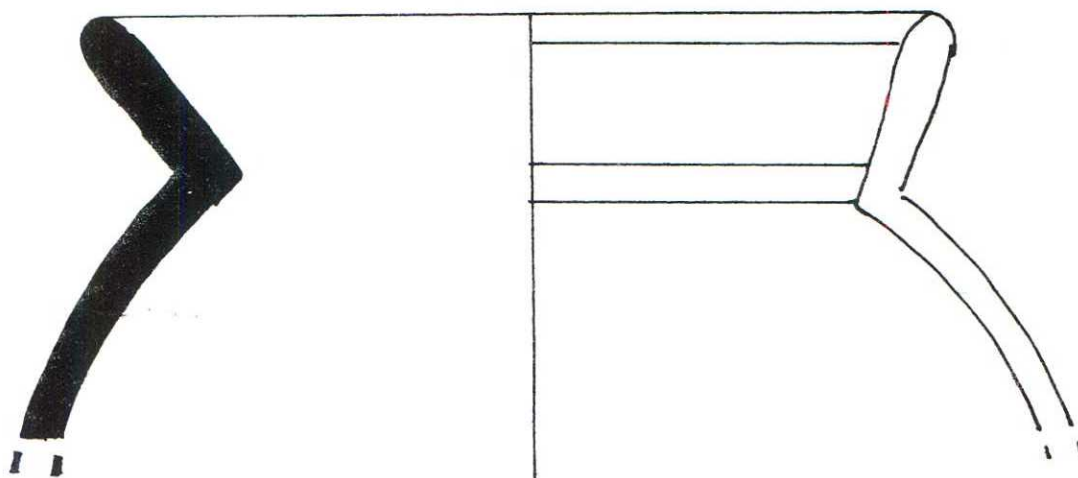


## COARSE RED WARE



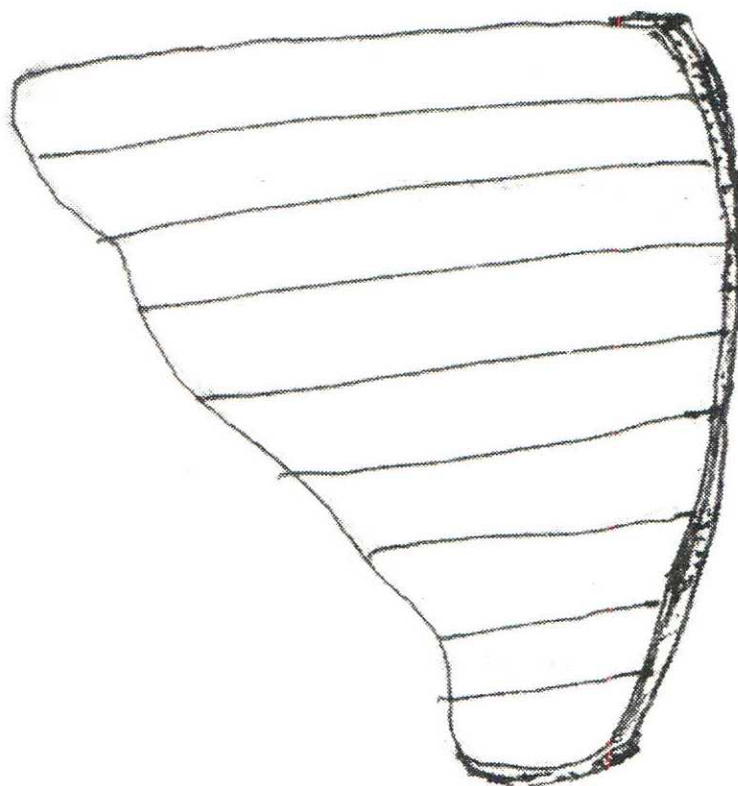
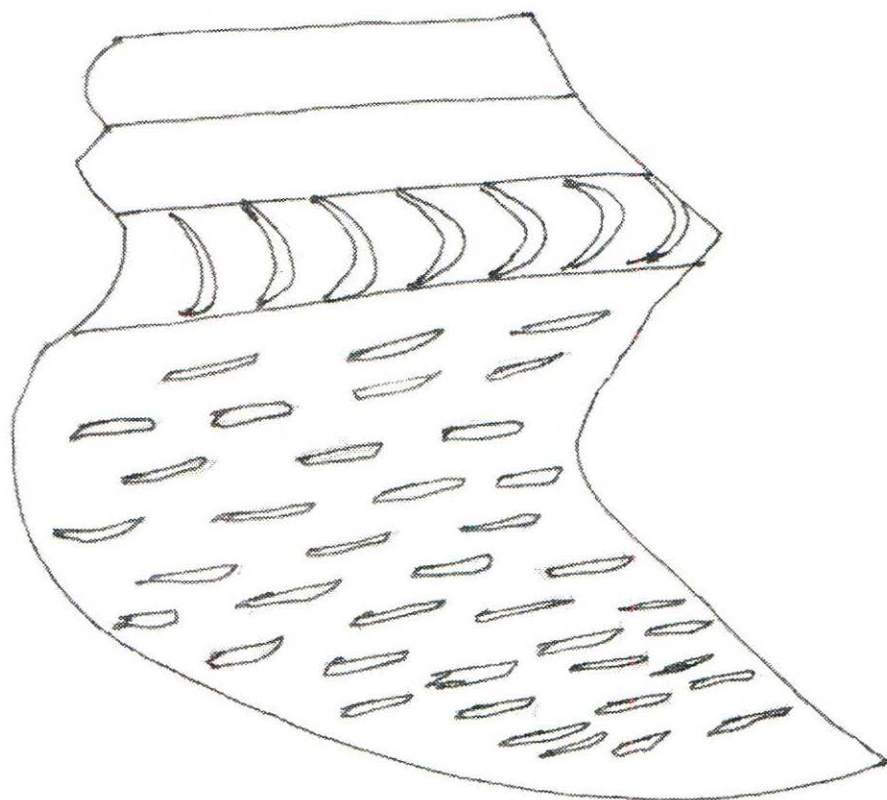


## COARSE RED WARE



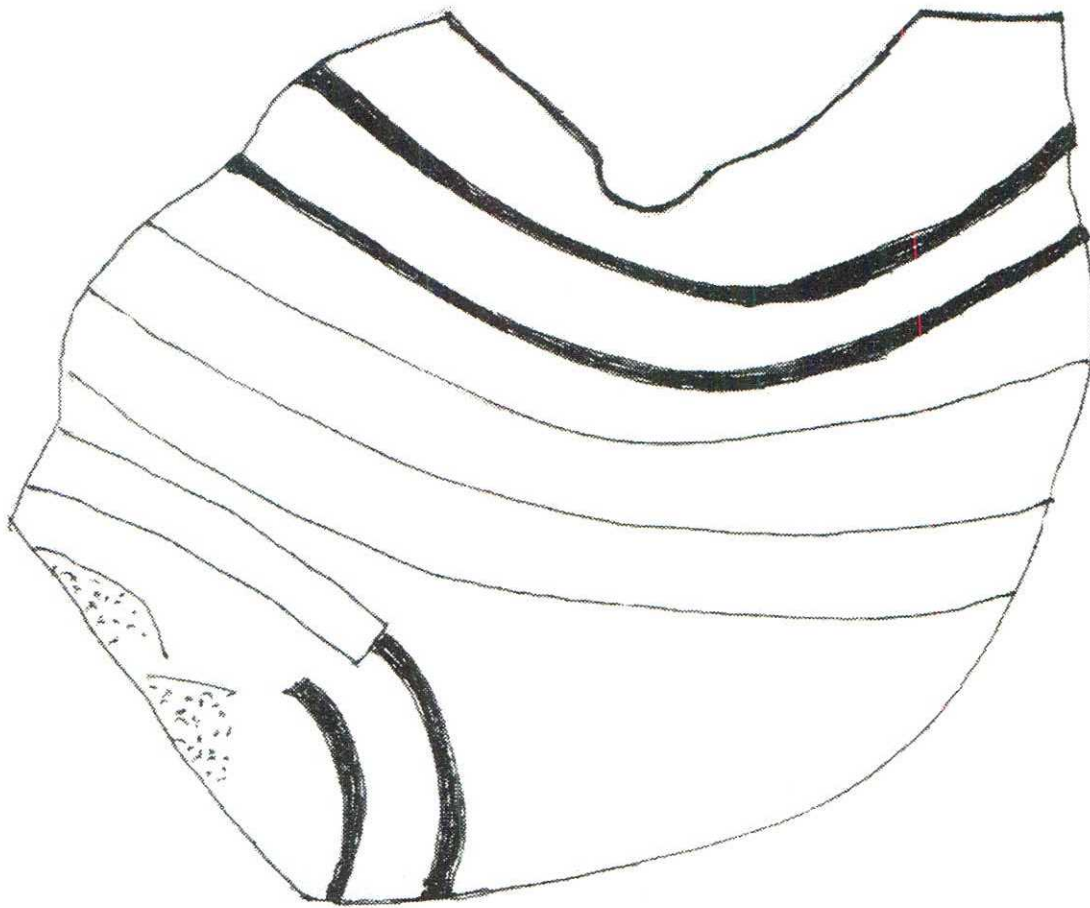


## GROOVED DESIGN POT SHERD

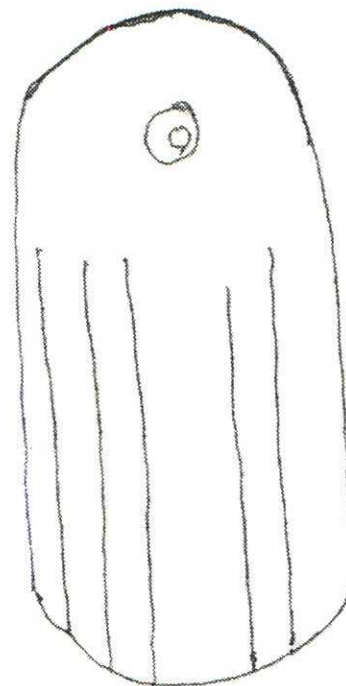
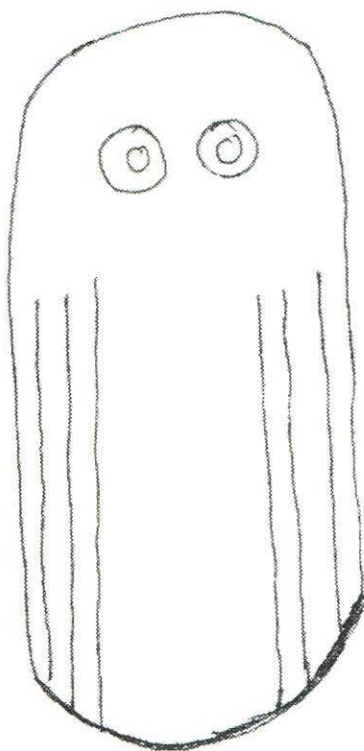




## DECORATED POT SHERD



## GROOVED TILES



## ANTIQUITIES

Mankulam excavation is significant as it has brought to light new evidences on Jains in the Madurai region. Though Mankulam has yielded less number of antiquities, the artifacts have archeological importance and help to fix the date of this site. Bricks, grooved tiles, sling stone, coin, nails etc. were found in the excavation.

Large number of potsherds were collected in this excavation that being discussed in the pottery chapter.

### Coin

Mankulam Excavation yielded a copper coin It is obtained at the cultural deposit of period II. This copper coin belongs to later Pandya period. Shape of the coin is round and the diameter measured 1.6 cm. Three dimension measurement was also taken for the coin as 0.80×1.10×0.25 mts. Reverse side is completely corroded.

### Iron Nails

In this excavation number of Iron nails measuring 3 cm to 14 cms in length were collected. The occurrence of the clamp nail and Iron nails reveals that the super structure was made of wood fixed with Iron nails.

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## CONCLUSION

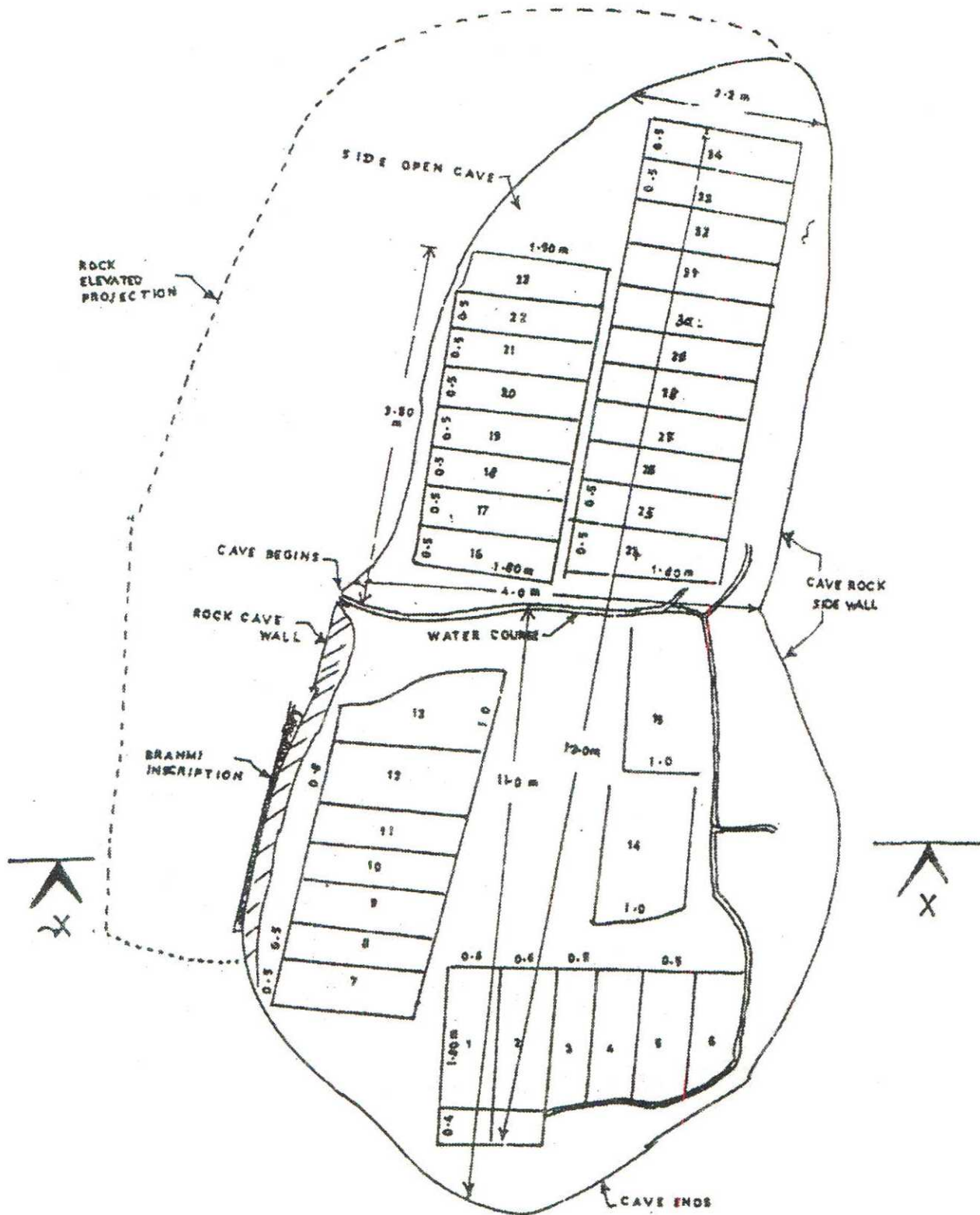
From the excavations the following observations were made:

### Objects Collected

- A copper coin of 13<sup>th</sup> century A.D. from the trench MKM I
- Sling stones.
- A broken crucible.
- A microlithic scrapper tool.

### Further

- A brick structure was exposed at the depth of 0.90 mt. the breadth of the structure -1.10 mt, length - 6.10mts. Header and stretcher method was used for the construction.
- Number of grooved tiles were used for the roofs
- Iron nails in various sizes were unearthed that might have been used for joining the rafters and tiles from the trenches MKM III & IV.
- Well ground lime mortar was used for the construction of the buildings as binding material.
- A broad pavement of bricks was unearthed suggesting a prayer place of the Jain ascetics.
- Mankulam was mainly used by the Jain monks (300 B.C.) for carrying out some of their religious activities
- From the above observations it can be ascertained that this area was occupied by the Jain monks in the 3<sup>th</sup> century B.C. This place was not used by the common people. It was only the settlement of the Jain ascetics, who stayed in the cave having the rock beds and preached Jain ideology to the near by villagers.

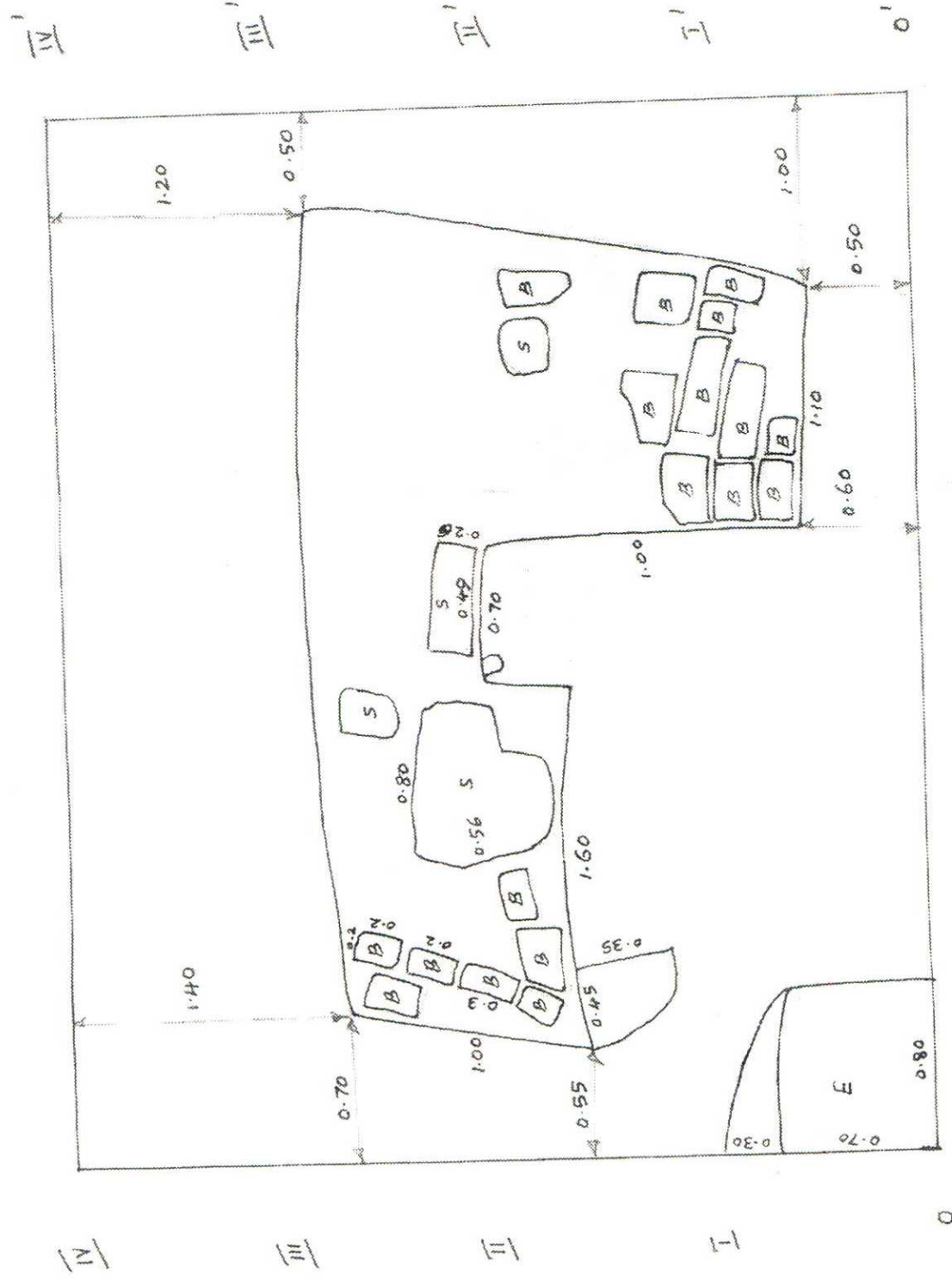


SKETCH SHOWING THE NEWLY DISCOVERED  
JAIN BEDS CAVE IN MEENAKSHIPURAM HILLS MADURAI Dt.

ALL NOTED MEASUREMENTS ARE IN METRIC UNITS.  
DRAWN TO 1:50 SCALE

12/12/06.  
A. Raghav  
DRAWN BY



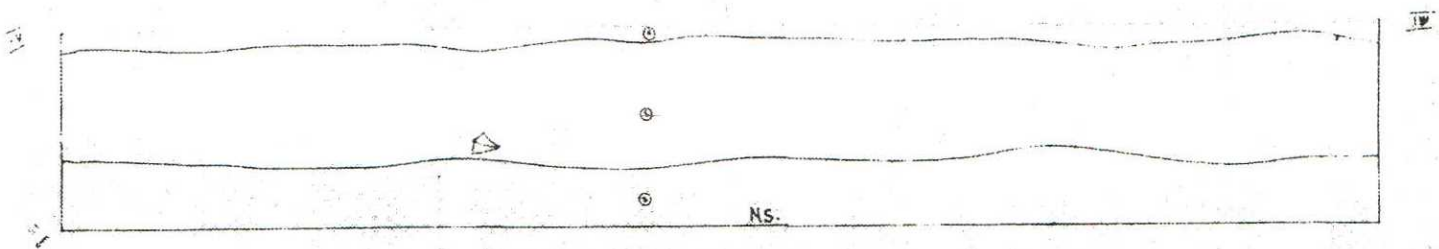


ARCHAEOLOGICAL EXCAVATION  
MANGKULAM - 2007  
TRENCH PLAN ... MKM-4  
SCALE 1:300

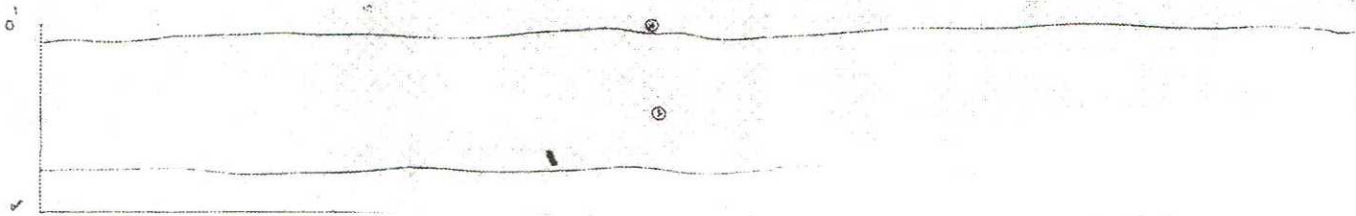
INDEX:  
B - BRICK  
S - STONE  
E - EARTH

# DIAGRAMS OF THE SECTION MKM -1

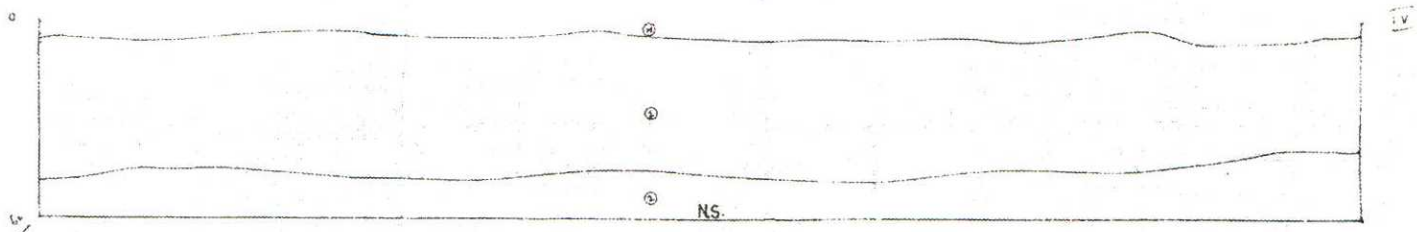
MKM-1 WEST



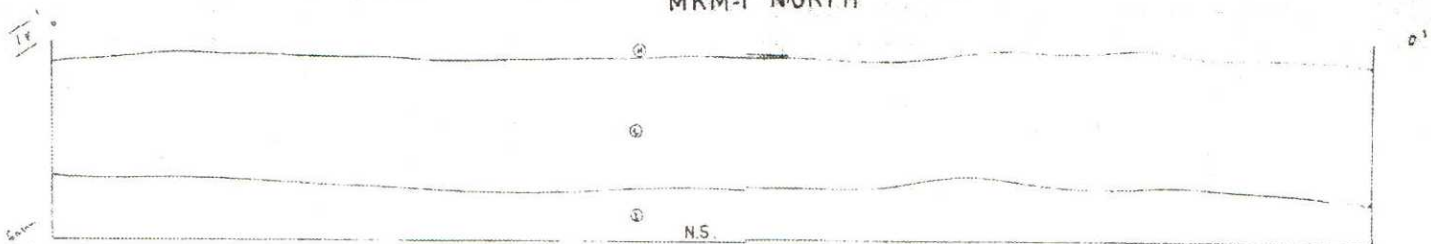
MKM-1 EAST



MKM-1 SOUTH

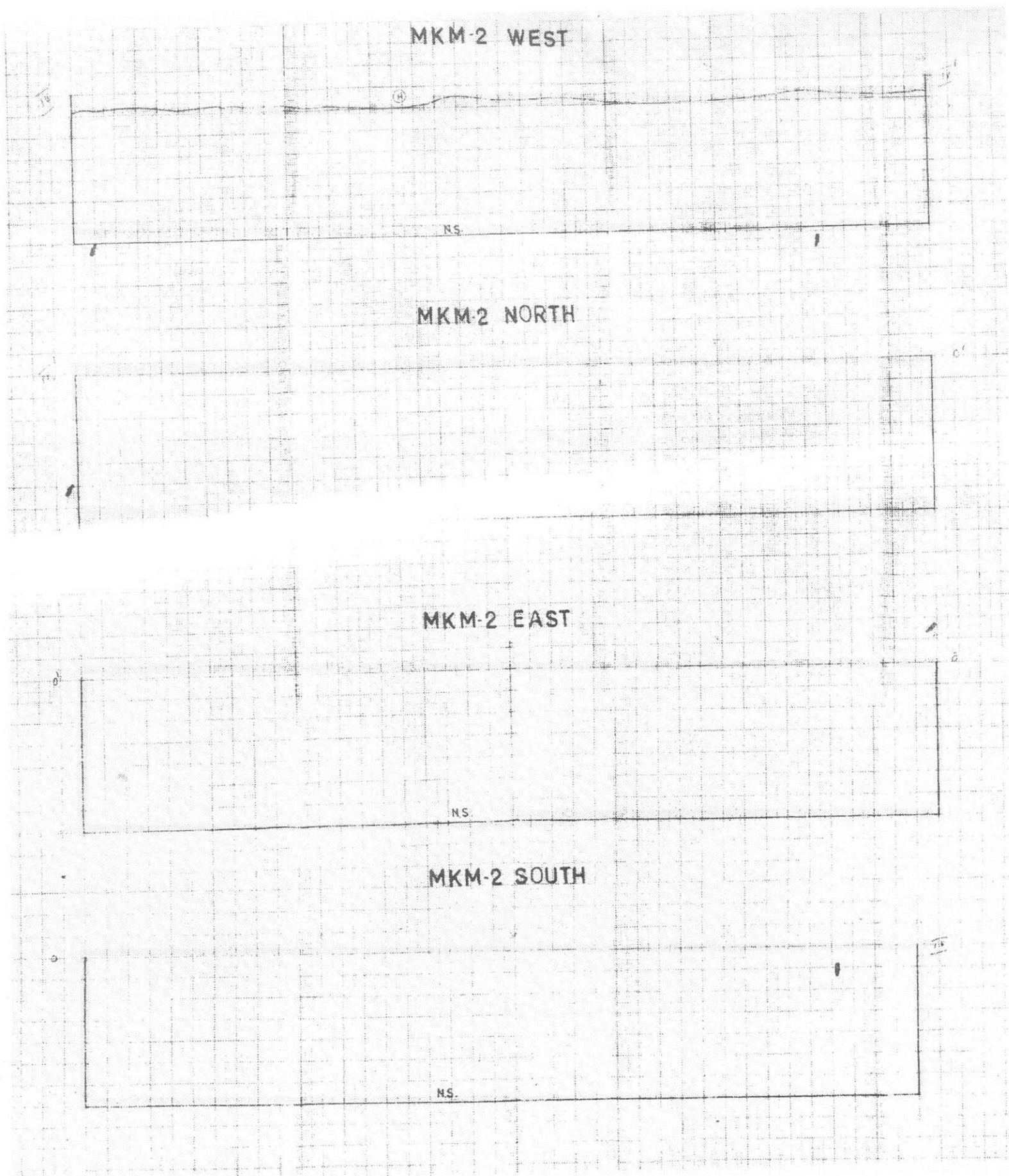


MKM-1 NORTH



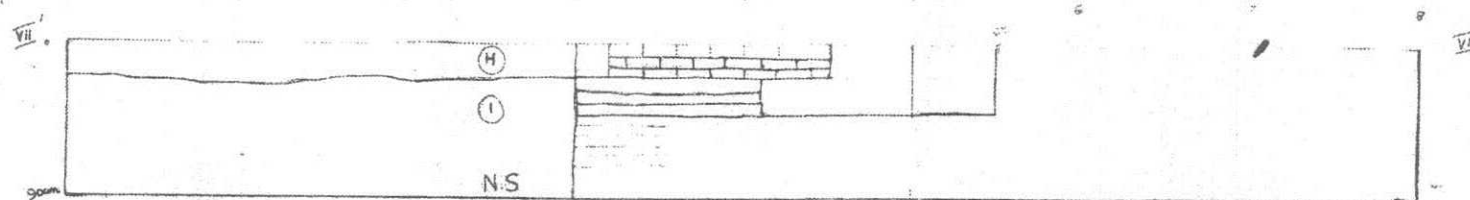


## DIAGRAMS OF THE SECTION MKM -2

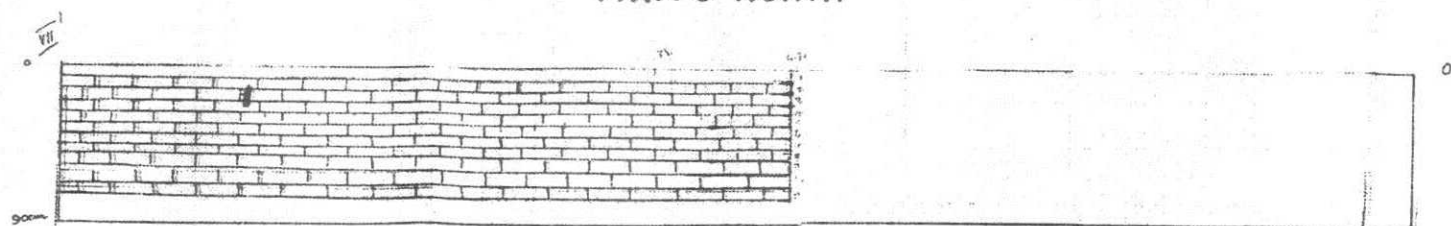


## DIAGRAMS OF THE SECTION MKM -3

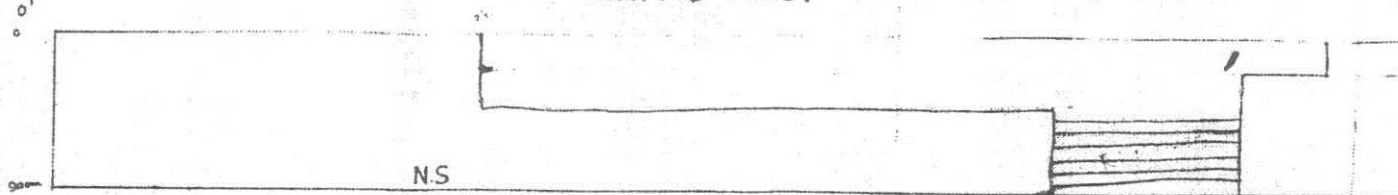
**MKM-3 WEST**



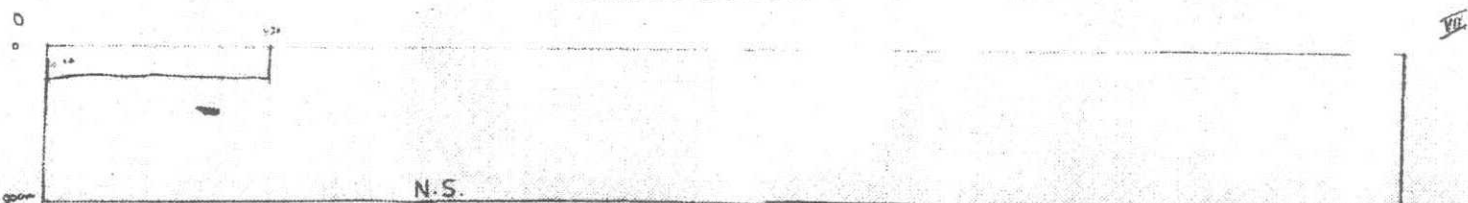
**MKM-3 NORTH**



**MKM-3 EAST**

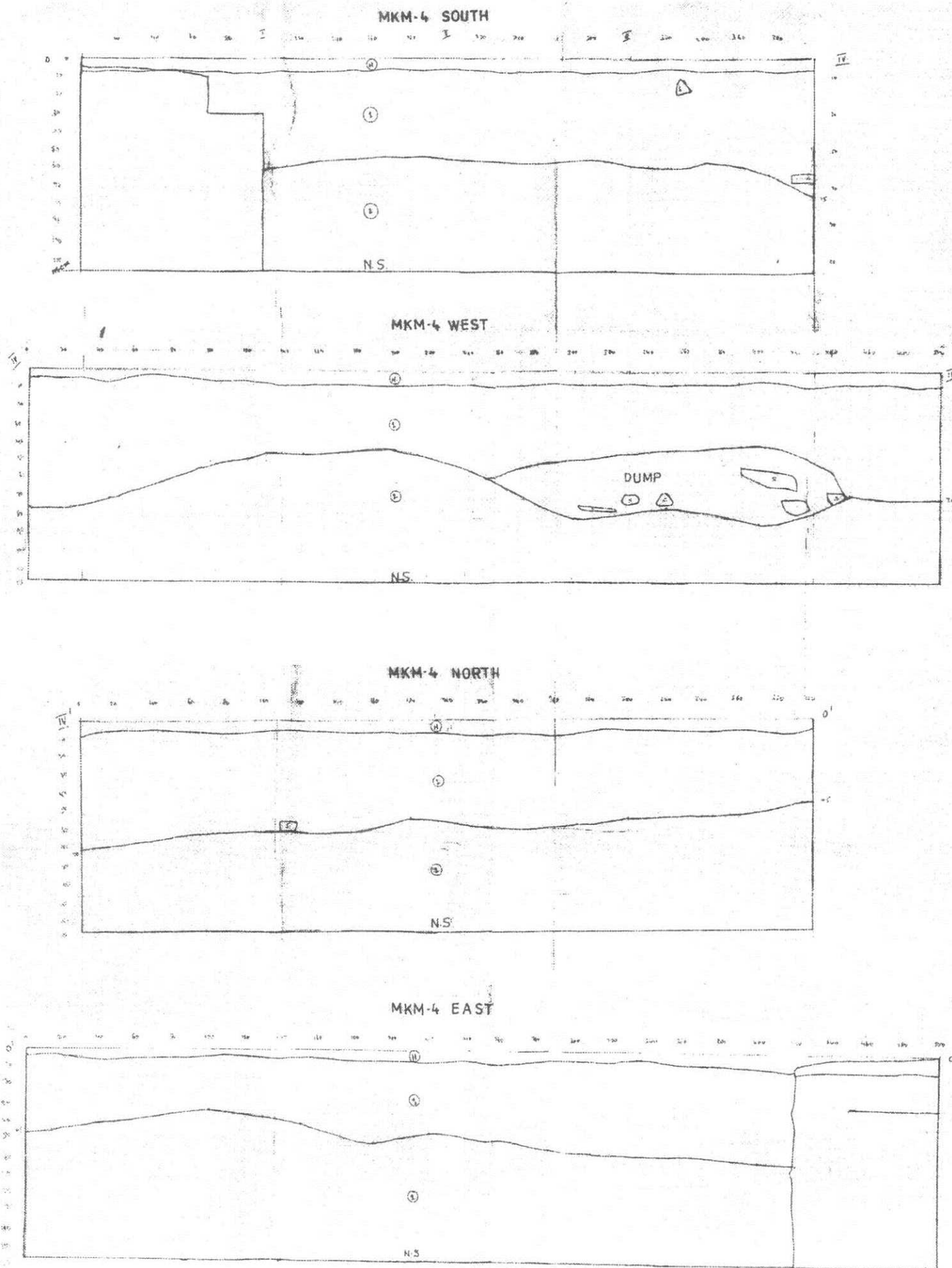


**MKM-3 SOUTH**





# DIAGRAMS OF THE SECTION MKM -4



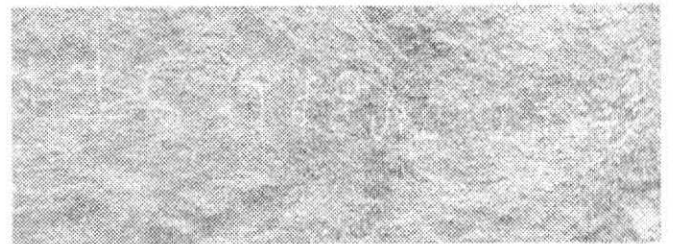
ARCHAEOLOGICAL EXCAVATION -2007  
MANGKULAM  
SECTION DRAWING MKM-4 SCALE -1:10

## MANKULAM VIEW OF THE HILLOCK

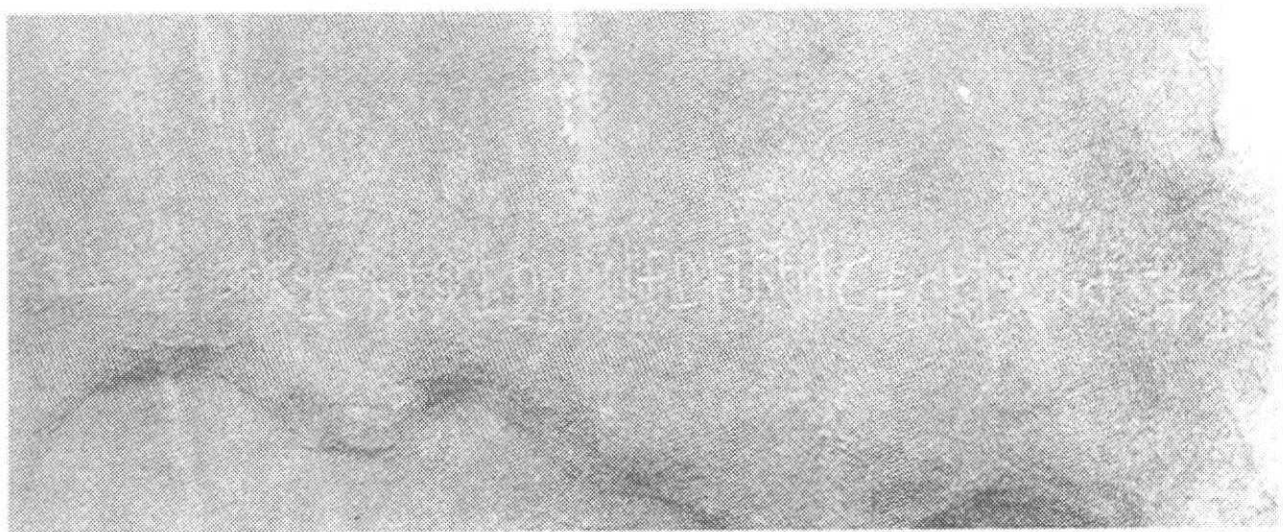




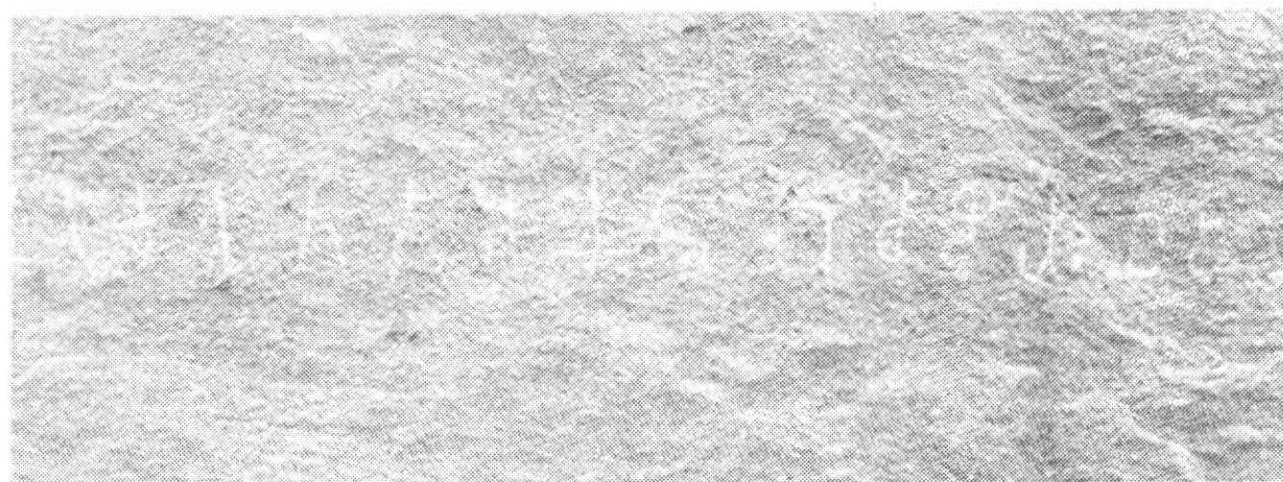
## VIEW OF THE INSCRIPTIONS



## TAMIL-BRAHMI INSCRIPTIONS



**Netuncaliyan**



**Ilancatikan**



## VIEWS OF EXPOSED BRICK STRUCTURE







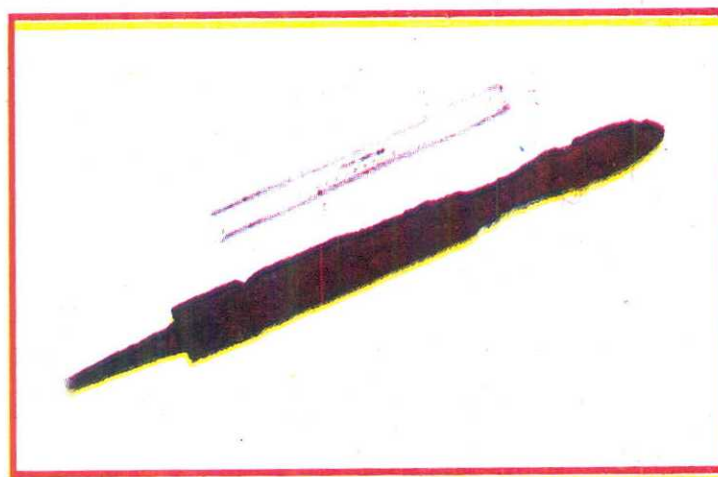
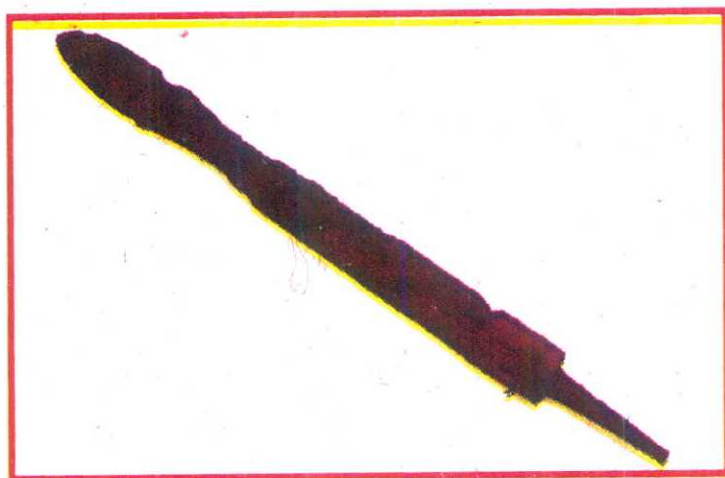
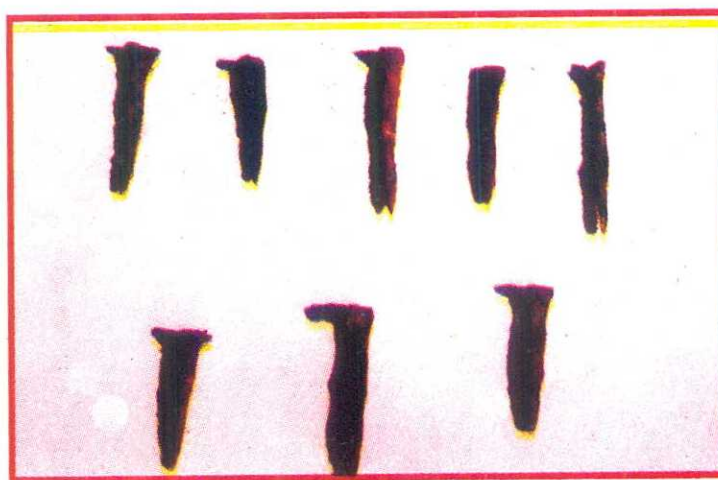
**Unearthed Bricks**



**Excavated Grooved Tiles**



## CLAMP & IRON NAILS





# MAP OF MADURAI DISTRICT

