



EXCAVATION AT KEELADI, TIRUPPUVANAM TALUK SIVAGANGA DT (T.N)

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GUWAHATI

Background for the excavation

- Among the habitation sites noticed during exploration, **Keeladi strikes importance due to its vast area and proximity to the celebrated historic town of Madurai, the capital of Pandyas of Sangam period.**
- **Keeladi is the only intact habitation site as on date available near Madurai** having ample scope for large scale scientific excavation.
- There is **no space available to conduct excavation to know the cultural sequence of Madurai city due to rapid urban growth.**
- Many of the habitation sites in the Vaigai river valley face **threat of being destroyed due to rapid agricultural expansion and urbanization.**

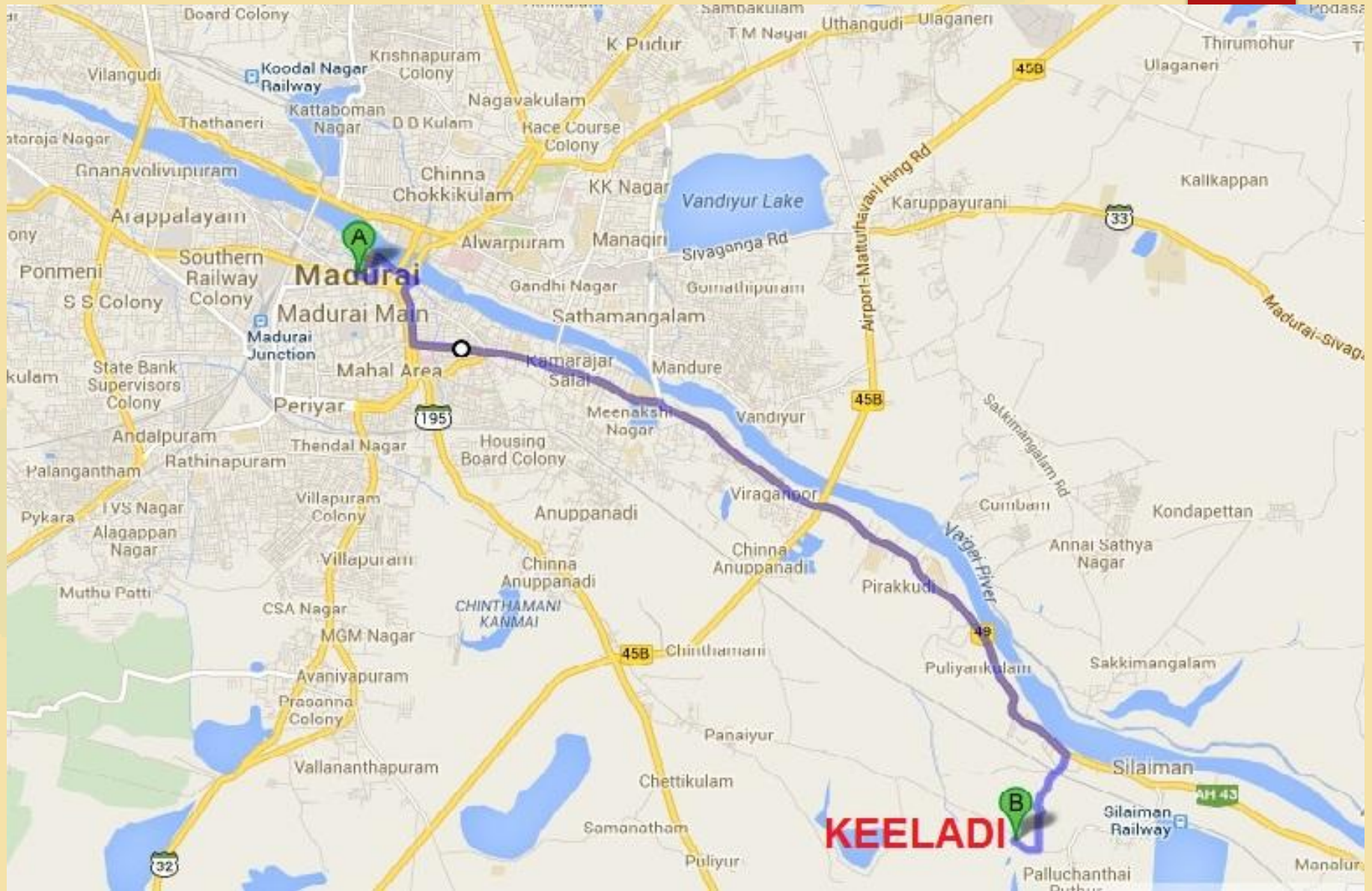
Background for the excavation

- Many of the habitation sites in the Vaigai river valley face threat of being destroyed due to rapid agricultural expansion and urbanization
- Keeladi has potent archaeological wealth to provide crucial evidences to understand the **cultural transformation of Iron Age to Early Historic period** and further developments that took place in subsequent periods in Vaigai river valley
- The excavation at Keeladi is likely to provide evidences to **understand the cultural development of ancient Madurai**
- Will also help to understand the chronological events/sequence of southern Tamil Nadu in particular

LOCATION

- Keeladi (09° 51' 40" N, E 078° 11' 70" E) lies about 12 Kms south east of Madurai on the ancient highway (modern NH 49) leading to Ramesvaram via Tiruppuvanam.
- Strategically located on the south bank of river Vaigai and is surrounded by various historical places.
- Vaigai is one among the sacred rivers and the major life line for southern Tamil Nadu.
- The actual site is located south east of present Keeladi village and west of Manalur lake (kanmay).

LOCATION OF THE SITE



KEELADI AND ENVIRONS

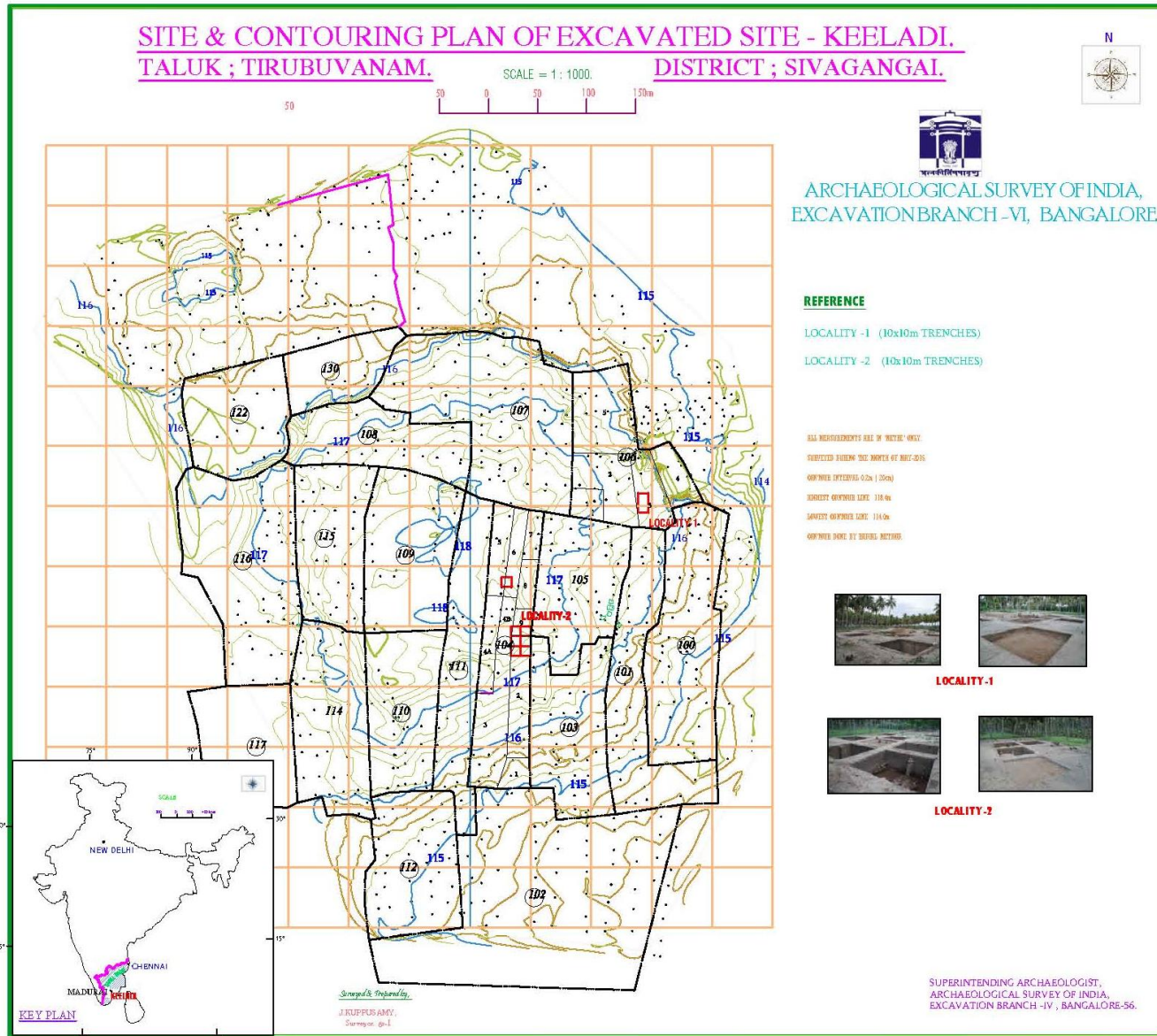


KEELADI VILLAGE MAP



**AREA
SELECTED FOR
EXCAVATION
AT
KEELADI**

KEELADI CONTOUR MAP



Historical Background

- Except the below mentioned references **no earlier references found**
- During 13th cent. AD the whole area thrived as a Brahmin settlement well versed in four vedas called ***Kuntidevi Chaturvedimangalam***, named after Pandyan queen. The present Kondagai is the corrupt form of the above.
- The inscriptions in the nearby Siva temple mentions that it was located in the territorial unit of '**Velur Kulakkizh**'. The name Keeladi is derived for its location lying to the east of '***Kuntidevi Chaturvedimangalam***'
- The Ayyanar temple near Siva temple contain many stone images datable to c. 12 – 13th cent. CE.
- The cultural continuity of the site is evinced by the finding of a stone slab inscription near the urn burial complex datable to

IMPORTANCE OF THE SITE

- The impressive habitation mound at Keeladi is called as '**Pallichandai Thidal**' or '**Mettupunjai**' is located 1 km to the south east of present Keeladi village
- The mound is spread in an area of about **110 acres** with circumference of **4.5 km**
- The mound raising of about **2.88 meters** from the present ground level.
- In this area three localities namely **1 & 2** with **extension of 2** were subjected to excavation during the first season.
- A total number of **43** quadrants were opened in the season **2014 – 15**
- A total number of **59** quadrants were opened in the season **2015 – 16**



View of Excavated Trenches in Locality – 1 (2014 -15)



View of Excavated Trenches in Locality – 2 (2014 -15)



**View of Excavated Trenches in Locality – 2 (Extn)
(2014 – 15)**

CULTURAL SEQUENCE

- In Locality 1 the cultural deposit measured up to 2.80 meters with six layers
- In Locality 2 the cultural deposit measured up to 4.50 meters with six layers
- In Locality 2 (extension) the cultural deposit measured up to 3.70 meters with six layers
- Fine variety of Black and Red ware found at the lowest level
- Based on the archaeological evidences found at the Keeladi site tentatively dated from **3rd century B.C.E to 10th**

century C.E

SCIENTIFIC DATING

➤ Carbon 14 dating 200 B.C.E

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12 = -24.2 ‰; lab. mult = 1)

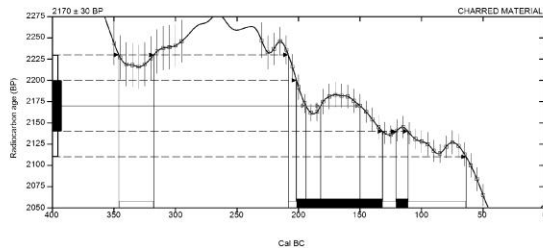
Laboratory number **Beta-454696 : KLD 2016 YF1/1**

Conventional radiocarbon age **2170 ± 30 BP**

Calibrated Result (95% Probability) **Cal BC 345 to 320 (Cal BP 2295 to 2270)
Cal BC 210 to 65 (Cal BP 2160 to 2015)**

Intercept of radiocarbon age with calibration curve
Cal BC 195 (Cal BP 2145)
Cal BC 180 (Cal BP 2130)
Cal BC 150 (Cal BP 2100)

Calibrated Result (68% Probability) **Cal BC 200 to 130 (Cal BP 2150 to 2080)
Cal BC 120 to 110 (Cal BP 2070 to 2060)**



Database used
SHCAL13

References

Mathematics used for calibration scenario

A Simplex Approach to Calibrating C14 Dates, Talma, A. S., Vogel, J. C. 1993, Radiocarbon 35(2):317-322

References to SHCAL13 database

Hogg AG, Hall G, Blackwell PG, Hu M, Buck CE, Guilderson TP, Heaton TJ, Palmer JG, Reimer PJ, Reimer RW, Turney CSM, Zimmerman SRH. 2013. SHCAL13 Southern Hemisphere calibration, 0-50,000 years cal BP. Radiocarbon 55(4):1889-1903.

Beta Analytic Radiocarbon Dating Laboratory

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12 = -25.1 ‰; lab. mult = 1)

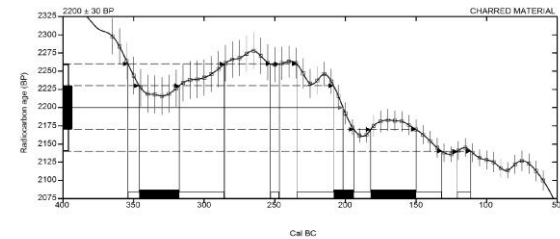
Laboratory number **Beta-454697 : KLD 2016 YF4/2**

Conventional radiocarbon age **2200 ± 30 BP**

Calibrated Result (95% Probability) **Cal BC 355 to 285 (Cal BP 2305 to 2235)
Cal BC 255 to 245 (Cal BP 2205 to 2195)
Cal BC 235 to 130 (Cal BP 2185 to 2080)
Cal BC 120 to 110 (Cal BP 2070 to 2060)**

Intercept of radiocarbon age with calibration curve
Cal BC 200 (Cal BP 2150)

Calibrated Result (68% Probability) **Cal BC 345 to 320 (Cal BP 2295 to 2270)
Cal BC 210 to 195 (Cal BP 2160 to 2145)
Cal BC 180 to 150 (Cal BP 2130 to 2100)**



Database used
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Mathematics used for calibration scenario

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Stratification of Layers (Loc – 1) (2014 – 15)



Stratification of Layers (Loc – 1) (2014 – 15)



Stratification of Layers (Loc – 2) (2014 – 15)



**Stratification of Layers Below Natural Soil (Loc – 2)
(2014 – 15)**



Stratification of Layers (Loc – 2 – Extn) (2014 – 15)

IMPORTANCE OF THE SITE

- Excavation revealed impressive structural activities of early historic period. The structures comprise of **brick walls, rectangular chamber, brick floor corridor** and **tanks**
- The size of the bricks measures **L 36 x B 24 x T 7 cms** & **L 34 x B 23 x T 6 cms** (Locality 2), **L 33 x B 21 x T 5 cms** (Locality 1) comparable with other early historic sites in Tamil Nadu
- The presence of large number of **handmade grooved tiles** suggests the existence of tiled roof above the structure
- Two types of ring wells were found in Locality 2.
- The ring wells in lower most level were decorated and each ring measured 48 cms in height
- The ring well in upper level were plain and each measured 23 cms in height



Exposed brick structure - 1 (Loc-1) (2014 – 15)



Keeladi – Brick structure - 2 (Loc-1) (2014 – 15)



Keeladi – Brick structure - 2 (Loc-1) (2014 – 15)



Keeladi – Exposed brick floor with ring well(Loc -2) (2014 – 15)



Keeladi – Exposed brick wall with roof tiles in Loc -II (2014 – 15)



Keeladi – Exposed brick flooring with parallel walls in Loc -II (2014 – 15)



Keeladi – Exposed Ring well (Loc-2) (2014 – 15)



Keeladi – Brick structure (Loc-2) (2014 – 15)



**Keeladi –View of Exposed Structure (Loc- 2)
(2014 – 15)**

ANTIQUITIES

- Total number of antiquities – 1800 Nos
- Semiprecious stone beads - Carnelian, Agate, & Chalcedony
- Quartz and Pearl beads
- Glass beads – 800 Nos (various colours)
- Copper coins – square & round
- Terracotta objects – Figurines, beads, gamesmen, spindle whorl, disc, wheel
- Bone stylus or points
- Metal objects - Iron spearheads & Copper Antimony rods
- Ivory dice
- Shell bangles
- Stone Quern & Pestles



Keeladi – Terracotta Figurines (2014 – 15)



Terracotta Beads (2014 – 15)

**Semi precious
stone beads
(2014 – 15)**

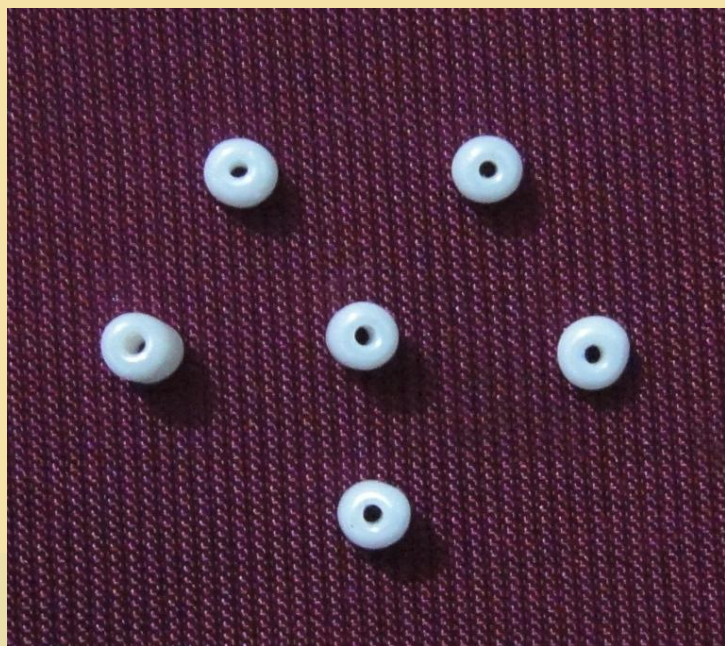




**Semi precious
stone beads**

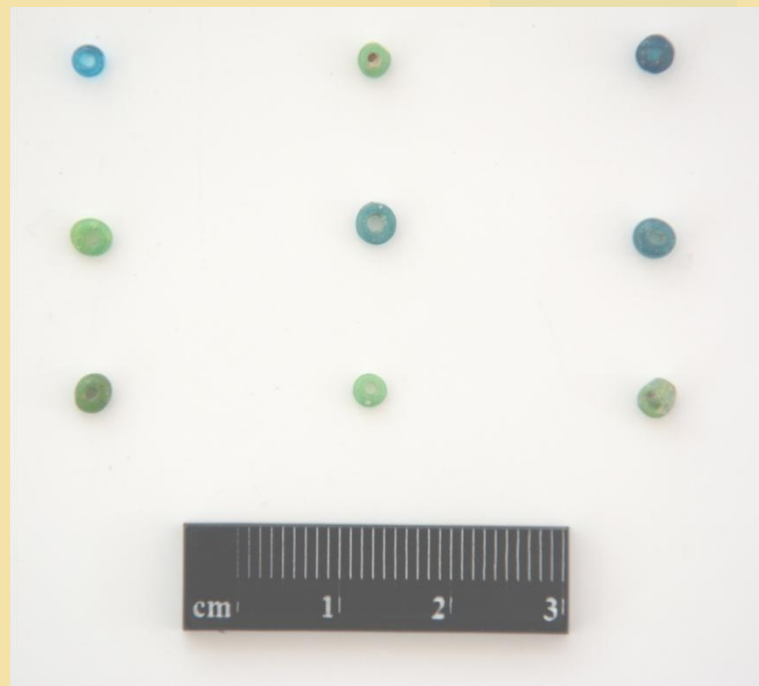
**Glass Beads
(2014 – 15)**





Pearl Beads

Glass Beads (2014 – 15)





**Keeladi – Copper Objects
(2014 – 15)**



Keeladi – Iron Objects



**Keeladi – Bone Objects
(2014 – 15)**



Keeladi – Shell bangles



**Keeladi – Ivory Dice
(2014 – 15)**



Keeladi – Gamesmen



Keeladi – TC Discs (2014 – 15)



POTTERY

- 32 Tamil-Brahmi inscribed potsherds were found. The names of the individual include '***Thisan***', '***Uthiran***', '***Adhan***', '***Iyanan***', and '***Surama***'.
- The Tamil-Brahmi inscribed potsherds are datable to 2nd century B.C.E to 1st century C.E.
- Nearly 350 graffiti potsherd were found. The symbols include **Fish, boat, swastik, sun, arrow**, etc.
- The Ceramic assemblages include **black and red ware, white painted black and red ware, black ware, red ware and Russet coated painted ware (Andhra or Satavahana ware)**
- the Roman potteries found at the site are **Arretine and Rouletted** ware and shows the commercial trade link.



Keeladi – Tamil – Brahmi inscribed potsherd (2014 – 15)



Keeladi – Tamil – Brahmi inscribed potsherd (2014 – 15)



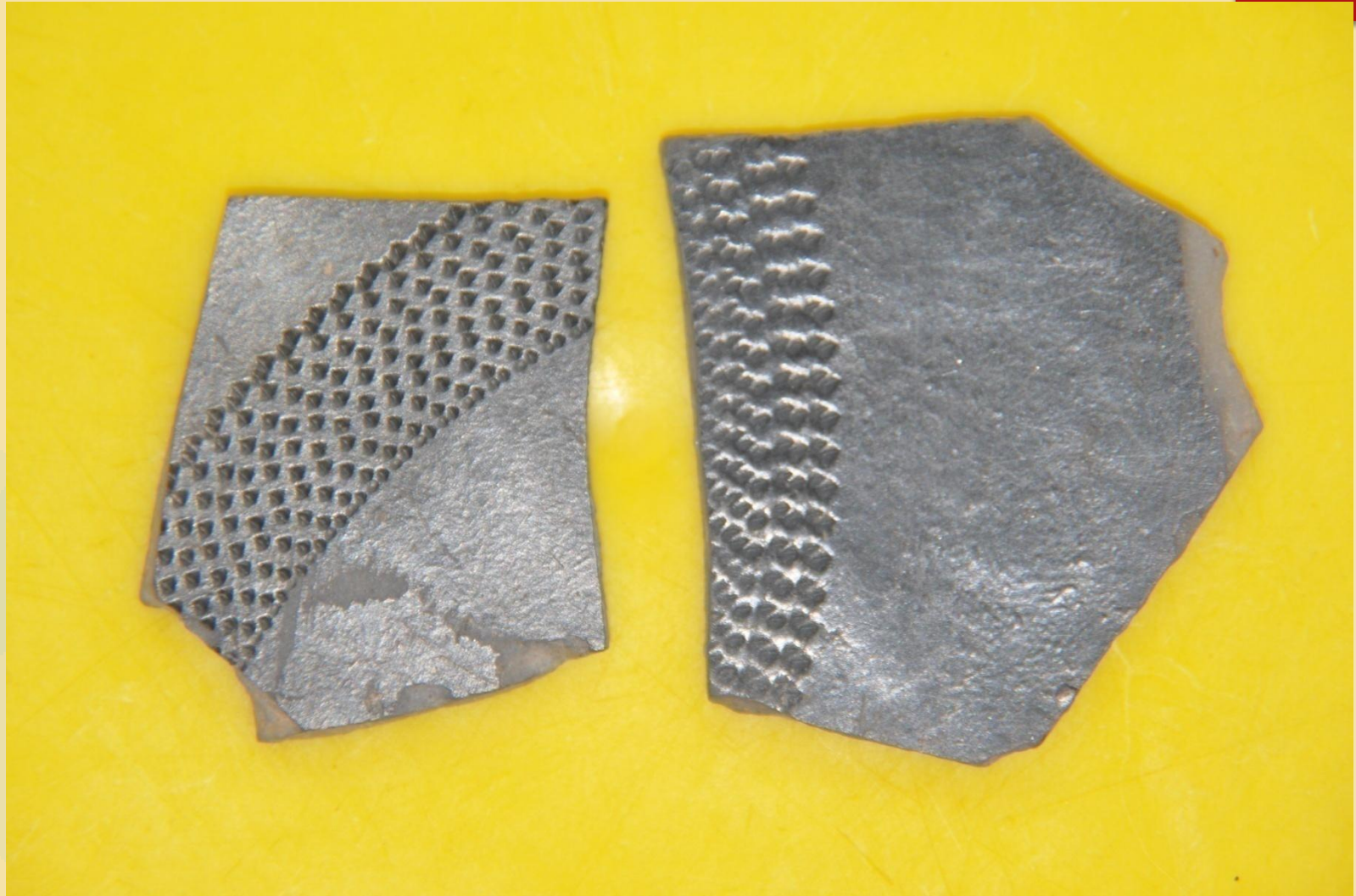
Keeladi – Tamil – Brahmi inscribed potsherd (2014 – 15)



Keeladi – Tamil – Brahmi inscribed potsherd (2014 – 15)



**Potsherds with
fish symbol
(2014 – 15)**



Keeladi – Roulette pot sherds (2014 – 15)



Keeladi – Russett coated pot sherd with graffiti (2014 – 15)

Tamil Heritage Foundation



Russett coated painted ware

**White painted
Black & red ware
(2014 – 15)**





Storage pot insitu (2014 – 15)



Decorated storage pot



Keeladi – Pottery Varieties

Keeladi – Insitu bowls (2014 – 15)





Keeladi – Pottery Varieties (2014 – 15)





Keeladi – Pottery Varieties (2014 – 15)

Associated burial site



- Kondagai is the associated burial complex of this site as indicated by presence of urn burials
- Further excavations in the burial area shall reveal more details about its association with habitation





Thank You

End of Part-II

Continue reading Part-III