# IRON USE IN TAMILNADU: HISTORY

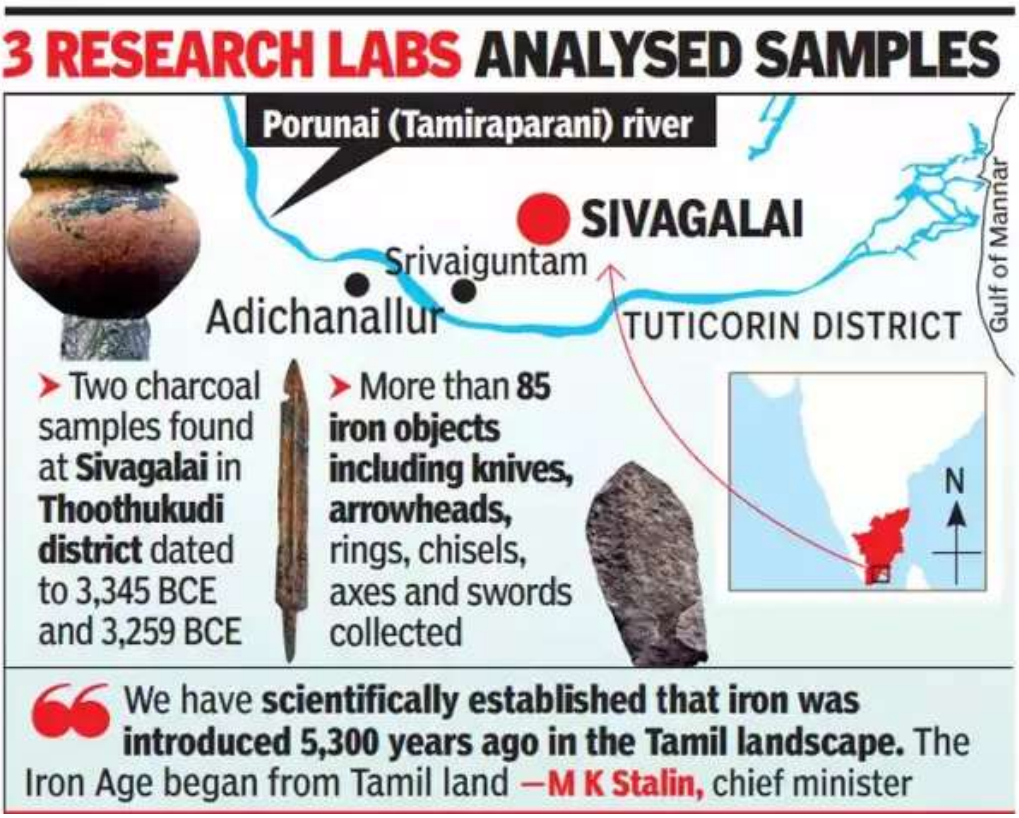
**NEWS:** Iron Age began in Tamil Nadu in first quarter of 4th millennium BCE

## WHAT'S IN THE NEWS?

A landmark study has revealed evidence of iron technology in Tamil Nadu dating back to 3345 BCE at Sivagalai, reshaping global and Indian timelines for the Iron Age and highlighting South India's early metallurgical sophistication.

## Key Findings from the Study

1. **Earliest Iron Technology**: Sivagalai site: Evidence of iron use from **2953–3345 BCE**, the earliest globally.
2. **Earliest Sarcophagus Burial**: Kilnamandi: Sarcophagus burial dated to **1692 BCE**, a Tamil Nadu milestone.
3. **Iron Smelting Evidence**: Sites like Mayiladumparai, Kilnamandi, and Perungalur: Advanced iron-smelting furnaces.




## Significance of the Findings

1. **Global Impact** : Challenges the theory of a singular Western origin for iron technology.

2. **Technological Advancement** : South India's metallurgical expertise aided agriculture, forest clearing, and land reclamation.

3. **Economic and Social Revolution** : Iron tools boosted trade, transport, and societal prosperity.

4. **Military Innovations** : Iron-based weapons (swords, shields, spears) transformed defense strategies.

## Iron Age in India

1. **Cultural Context**
    - Linked with **Megalithic culture**: Burial structures and iron tools.
    - **Phases**:
        - **Painted Grey Ware** (PGW): 1100–350 BCE.
        - **Northern Black Polished Ware (NBPW):** 700–200 BCE.
2. **Earliest Iron Age Sites** : Hallur (Karnataka) and Adichanallur (Tamil Nadu): Previously considered India's earliest (~1000 BCE).
3. **Overlap with Vedic Period** : Vedic period (12th–6th centuries BCE) coincides with Iron Age advancements.

## Dating Techniques Used

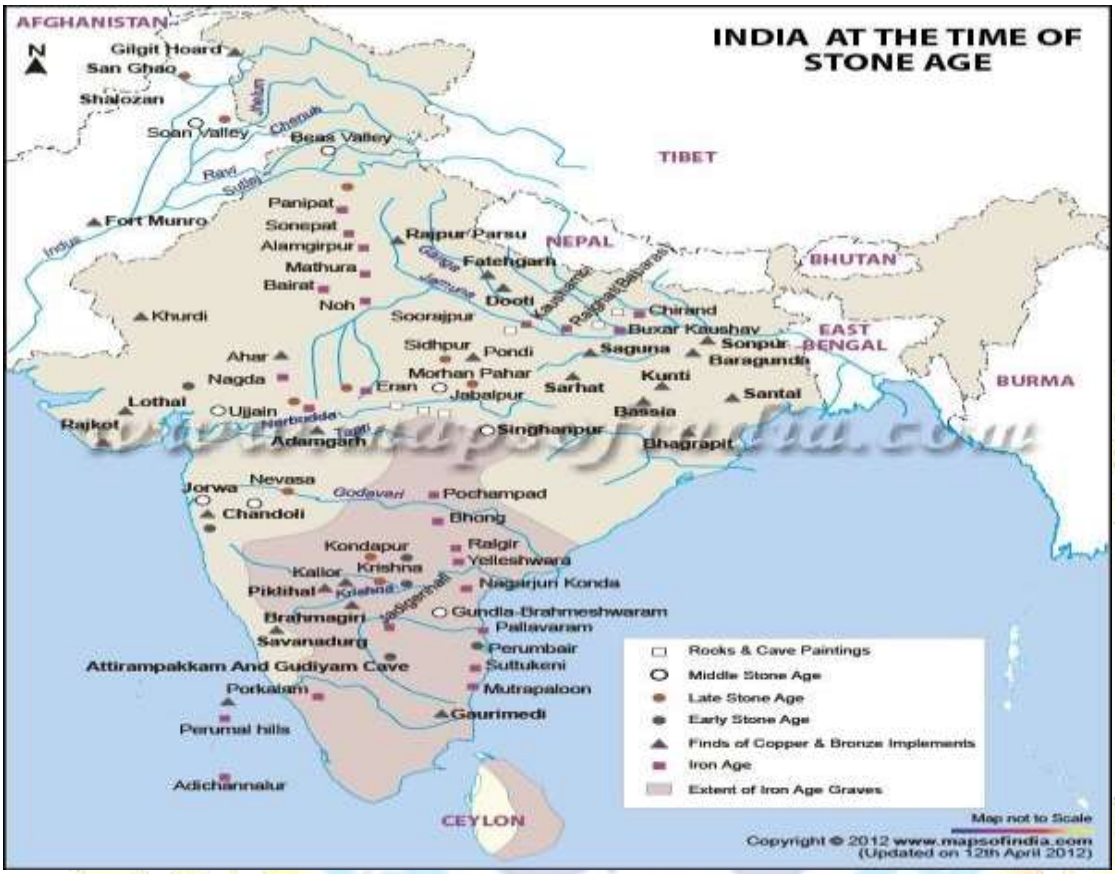
1. **Radiometric Dating** : Measures isotope decay for precise age estimates.

The findings provide evidence that iron technology in Tamil Nadu dates as far back as 3345 BCE

2. **Accelerator Mass Spectrometry (AMS)** : High-precision radioisotope ratio measurement.

3. **Optically Stimulated Luminescence (OSL)** :Dates the last exposure of quartz/feldspar to light or heat.

## Important Iron Age Sites in India




| Site | Location | Significance |
|---|---|---|
| **Sivagalai** | Tamil Nadu | Early evidence of iron technology (~3000 BCE). |
| **Adichanallur** | Tamil Nadu | Burial urns with iron artifacts. |
| **Mayiladumparai** | Tamil Nadu | Earliest iron smelting evidence (~2000 BCE). |
| **Hallur** | Karnataka | Early settlement with iron agricultural tools. |
| **Paiyampalli** | Tamil Nadu | Transition from Neolithic to Iron Age. |
| **Malhar** | Uttar Pradesh | Iron smelting activities (~1800 BCE). |
| **Atranjikheda** | Uttar Pradesh | Urban settlement with advanced metallurgy (~1000 BCE). |

**Source:** https://www.thehindu.com/news/national/tamil-nadu/iron-age-began-in-tn-in-first-quarter-of-4th-millennium-bce-stalin/article69130715.ece