

Ancient Artefacts Found in Tamil Nadu Has Carbon Nanotubes

2020-12-03

Research reveals that carbon nanotubes (CNTs) enabled the pottery shards to survive for 2600 years.

The oldest known man-made nanomaterials have been discovered by scientists in the "unique black coating" on ancient pottery shards, dated back to 600 BC and was unearthed from the archaeological site of Keeladi in Tamil Nadu.

The Scientific Research Journal recently published research articles on the coatings which reveals that it is made of carbon nanotubes (CNTs) which enables the layer to last more than 2600 years, raising questions on the tools used during that period to achieve high temperatures for making earthenwares.

According to scientists from [Vellore Institute of Technology \(VIT\)](#) in Tamil Nadu, the coatings happen to be the oldest nanostructures observed till now.

The oldest known nanostructures in human-made artefacts are from the eighth or ninth century AD so far.

Chandrasekaran, co-author of the study from VIT said that the closest scientific explanation for the finding is vegetal fluid or extract which might have been used in the coatings of these pots and led to the formation of CNTs during high-temperature processing.

The ancient people would not have known about CNTs but might have had the need of pots with high durability which eventually formed the CNTs, said Rajavelu S, professor of History at [Alagappa University](#) in Tamil Nadu.

IISER Thiruvananthapuram scientist, M.M. Shaijumon explains that the robust mechanical properties of the CNT based coating helped the layer sustain more than 2600 years.

Carbon nanotubes have superlative properties, including high thermal and electrical conductivity, and very high mechanical strength.

Read the [original article](#) on The Sentinel Assam.