



Under UNESCO Tentative List-2025

MUDUMAL MEGALITHIC MENHIRS SITE

Archaeoastronomical Significance from South India

Telangana, India.

Mudumal, located in Krishna Mandal, Narayanpet District, Telangana, is a small village featuring a significant archaeological site known locally as Niluvalla Thimmappa. This site, dating back approximately 3000 years, showcases the culture, traditions, and astronomical knowledge of its ancient inhabitants through its megaliths. The site contains about 80 large menhirs (standing stones) and several thousand smaller alignment stones, organized in rows and formations such as single-row alignments and dual row avenues. These formations align with the Sun during solstices, suggesting their use in solar observation. Notably, Mudumal hosts one of the densest concentrations of menhirs and alignment stones in Asia.



Deccan Heritage Academy Trust, Hyderabad

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ALIGNMENT OF MENHIRS



STONE WITH THE URSA MAJOR DEPICTION



AERIAL VIEW OF ONE OF THE MEGALITHIC STONE CIRCLE



AERIAL VIEW OF THE BOULDER ALIGNMENTS



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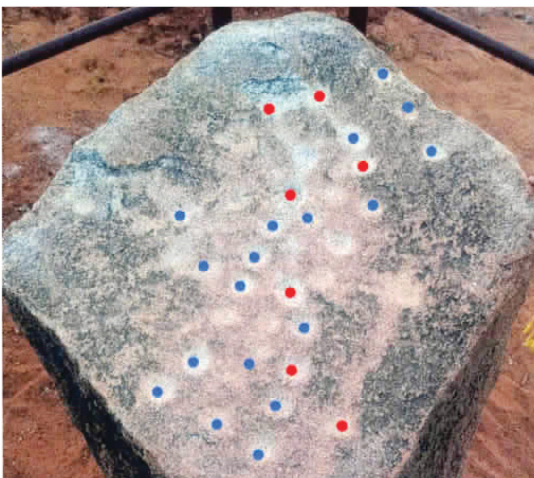
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Depiction of Ursa Major Constellation

To the west of the main cluster of tall menhirs at Mudumal, on a small hillock, several thousand smaller alignment stones are found. Among these, on the South-eastern Periphery, stands a notable squarish, vertically planted stone. This stone, about 80 cm high on the eastern side and 60 cm on the western side, features a near-square top measuring 60-75 cm per side with a sloping flat top marked by several cup-shaped indentations. These marks accurately represent the Ursa Major constellation, also known as the Great Bear or Big Dipper, and referred to in ancient Indian literature as Saptarshi Mandala. This depiction is particularly significant as it includes a detailed mapping of both major and peripheral stars of the constellation, aligning the cup-marks that represent the stars Merak and Dubhe to the north. This alignment points nearly precisely to the North Star, reflecting ancient practices of using this constellation to determine north. The accurate representation of Ursa Major at Mudumal, dating back 3000 years, is one of the earliest and most precise astronomical depictions found in South Asia, emphasizing the ancient inhabitants' sophisticated understanding of celestial navigation and orientations.



Depiction of Ursa Major (red dots) with surrounding stars (blue dots) on a boulder at Mudumal



Ursa Major with surrounding stars in the night sky



Depiction of Ursa Major and Leo Constellations

On the surface of another stone outcrop, a remarkable depiction of star constelations were noticed by the side of the road leading to the stone with Ursa Major depiction. This newly discovered depiction shows both the Ursa Major ar well as the Leo constellations.

Interestingly, this depiction also shows the Pole Star. This fact, further indicates that the Megalithic people living at Mudumal were keen observers of the star constellations and they had considerable astronomical knowledge. It is likely that this complex is planned in such a manner that it is possible to determine the commencement of seasons or workout a sort of calendar on the basis of Sun’s position in relation to these monuments. This suggests that the megalithic people were keen observers of the movement of the Sun in different seasons. Probably, they were deciding the time for commencement of agricultural operations or dates of festivals on the basis of the calendar worked out with the help of these alignments. It appears that the total complex of Mudumal monuments with the sky-map and the Sun alignments was a celestial observatory.



Cup mark depiction of Ursa Major and Leo Constellations on a rock at Mudumal (Left Photo is rock, right image is location of cup marks)



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