

Ambadevi Rock Shelters: Evidence of Early Representational Art from the Late Pleistocene (~35,000 BCE)

V. T. Ingole¹, Padmakar Lad², Manohar Khode³, Shirishkumar Patil⁴, Pradeep S. Hirurkar⁵, Jayant S. Wadatkar⁶

¹Fmr. Professor, Electronics, Independent Researcher

Abstract:

The Ambadevi rock shelters, discovered in 2007 in the Satpura–Tapti Valley on the Maharashtra–Madhya Pradesh border, represent one of the most intriguing prehistoric rock art complexes in India. This study presents multidisciplinary evidence suggesting that the pictographs of the Ambadevi shelters may date to the Late Pleistocene, approximately 35,000 BCE.

The analysis integrates three independent lines of evidence: (1) paleogenetic dating of ostrich eggshell fragments recovered from nearby archaeological sites, (2) detailed morphological comparison of depicted fauna with known extinct or regionally extinct species such as ostrich and Sivatherium, and (3) cognitive archaeological principles concerning the accuracy of visual representation in prehistoric art.

Several pictographs from the Mungsadev shelter depict animals that correspond closely to Late Pleistocene fauna of the Indian subcontinent, including ostrich, rhinoceros, and giraffid species resembling Sivatherium. One particularly unusual depiction appears to represent a long-snouted insectivorous mammal with morphological similarities to aardvark-type animals, though no direct fossil evidence for such a species currently exists in India.

Together these observations suggest that the Ambadevi pictographs may represent one of the earliest known examples of representational rock art in the Indian subcontinent. If confirmed through further archaeological investigation, the Ambadevi shelters could significantly contribute to understanding early symbolic behavior, ecological awareness, and artistic expression during the Late Pleistocene.

Keywords: Ambadevi rock shelters, Pleistocene rock art, Ostrich pictograph, Sivatherium, Prehistoric India, Mungsadev shelter, Faunal morphology, Late Pleistocene ecology

1. Introduction:

India preserves one of the longest continuous records of human habitation in the world, with archaeological evidence of early hominin presence dating back more than 1.5 million years. Among the most important expressions of early cognition and symbolic culture is rock art, which appears throughout the subcontinent in the form of pictographs, petroglyphs, and engravings. These artworks provide unique insight into the ecological knowledge, ritual practices, and cognitive development of prehistoric societies.

The Bhimbetka rock shelters in Madhya Pradesh have long been regarded as the most prominent rock-

art complex in India. Discovered by V. S. Wakankar [1] in the 1957, the site contains hundreds of shelters with paintings representing multiple chronological phases. Neumayer [2] discusses that some of the earliest animal figures in Indian rock art, including those at Bhimbetka Rock Shelters, may *stylistically* belong to an Upper Paleolithic artistic tradition, sometimes suggested to approach ~30,000 years before present. Mathpal [3] presented a detailed stylistic classification of the Bhimbetka paintings and suggested that the earliest phases belong to the prehistoric, particularly Mesolithic, period.

Although the region shows evidence of human occupation dating to the Middle Paleolithic, the earliest securely dated paintings are generally attributed to the Mesolithic period, approximately 10,000–12,000 BCE.

Other rock-art sites across India—including Lakhudiyar in Uttarakhand, Kupgallu in Karnataka, and Daraki-Chattan in Madhya Pradesh studied by Giriraj kumar [4] —contribute significantly to the broader tradition of Indian prehistoric art though the site lack pictograph. Cupule marks from the Daraki-Chattan Rock Shelter have been interpreted as possible Lower Paleolithic rock art [5] However, most of these sites lack direct chronological anchors or depictions of extinct fauna that might help establish earlier dates.

The discovery of the Ambadevi rock shelters in 2007 by Ingole et al [6] introduced a potentially important addition to this landscape. Located in the Satpura–Tapti Valley region along the border of Maharashtra and Madhya Pradesh, the Ambadevi complex contains more than 300 shelters with paintings executed primarily in red ochre. Several of these paintings depict animals whose anatomical features closely resemble species known from the Late Pleistocene fossil record.

This study examines the possibility that the Ambadevi pictographs [7] may represent an early phase of representational rock art in India, potentially dating to approximately 35,000 BCE. The argument presented here is not intended to challenge established chronologies but rather to propose that Ambadevi may represent an earlier artistic tradition that merits further archaeological investigation.

The Ambadevi rock shelters were subsequently examined by the Archaeological Survey of India (ASI) during field investigations conducted in 2012. The ASI team documented several of the painted shelters and noted the presence of faunal pictographs on the sandstone surfaces of the Mungsadev shelters. Their observations confirmed the archaeological significance of the site and highlighted the need for further systematic documentation and scientific study of the rock-art assemblage and reported [8].

2. Archaeological Context of the Ambadevi Rock Shelters:

The Ambadevi rock shelters are situated in a rugged sandstone landscape within the Satpura mountain system, overlooking the Tapti River basin [6, 7, 10]. The geological formation consists primarily of Late Pleistocene sandstone cliffs that have weathered into natural shelters suitable for human occupation.

Field surveys conducted since the initial discovery have identified more than 300 rock shelters across the region. Many of these contain pictographs painted in red ochre, along with occasional petroglyphs and geometric markings.

The iconographic repertoire includes:

- large mammals
- carnivores
- birds
- geometric motifs
- possible ritual or symbolic symbols

Preliminary archaeological surveys conducted between 2012 and 2015 also reported the presence of lithic tools and other artifacts in the surrounding region, indicating prehistoric human activity.

The most significant concentration of pictographs occurs within the Mungsadev shelter, which appears to preserve a coherent assemblage of animal depictions executed in a consistent style.

3. Chronological Indicators:

Several lines of evidence suggest that the Ambadevi paintings may belong to the Late Pleistocene.

3.1 Ostrich Eggshell Evidence:

Ostrich eggshell fragments discovered at nearby archaeological sites such as Chandresal and Patne have been genetically analyzed and dated to approximately 24,000–42,000 BCE. Molecular studies show that these eggshells belong to the same lineage as the African ostrich (*Struthio camelus*), indicating that ostriches once inhabited the Indian subcontinent during the Late Pleistocene [10]. In a related study, Ingole [8] documented Late Pleistocene ostrich evidence from Central India and noted the occurrence of an ostrich pictograph within the Ambadevi rock shelters, which appears to be a rare or possibly the only known depiction of this species in Indian rock art.

3.2 Faunal Representation:

Several Ambadevi pictographs depict animals whose anatomical features correspond closely to species known from Late Pleistocene fossil records. These include:

- ostrich
- rhinoceros
- giraffid animals resembling Sivatherium
- carnivores such as hyena and leopard
- Long-Snouted Insectivore

The presence of such fauna suggests that the artists may have observed these animals directly within their natural environment.

3.3 Absence of Over painting:

Many rock-art sites show evidence of multiple phases of painting through overlapping layers of images. In contrast, the paintings within the Mungsadev shelter appear stylistically consistent, with little evidence of later repainting or superimposition.

This visual cohesion may indicate that the paintings were produced during a relatively limited time period.

4. Materials and Methods:

The study employed several complementary approaches:

Visual Documentation

High-resolution photographic documentation of the pictographs was conducted in situ under natural lighting conditions.

Comparative Morphology

Animal forms depicted in the paintings were compared with both extant and extinct species known from the fossil record of the Indian subcontinent.

Paleogenetic Correlation

Published genetic analyses of ostrich eggshell fragments from nearby archaeological sites were used as chronological anchors.

Cognitive Archaeology

Interpretation also considered the **neurovisual continuity principle**, which proposes that humans tend to depict animals accurately when those animals are directly observed within their environment.

5. Faunal Representations:

The Mungasadev shelter contains a diverse assemblage of animal depictions that appear to represent a wide ecological spectrum.

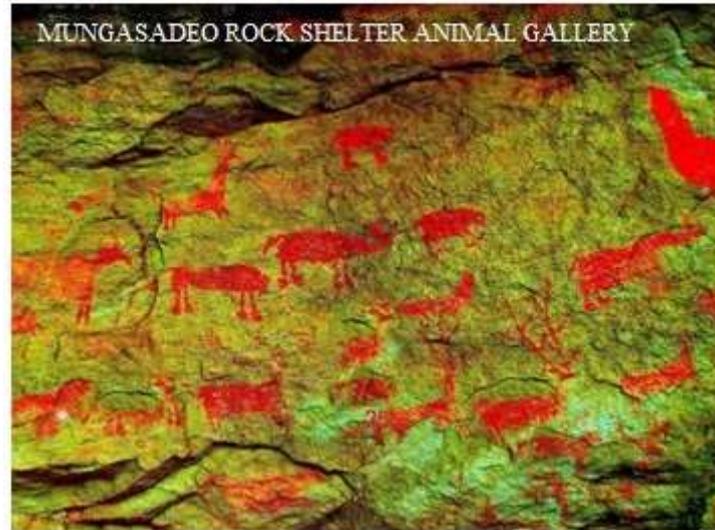


Figure 1
General pictograph gallery from the Mungasadev shelter

Carnivores

- Leopard (*Panthera pardus*)
- Striped hyena (*Hyaena hyaena*)
- Wild dog (*Cuon alpinus*)

Omnivores

- Sloth bear (*Melursus ursinus*)

Herbivores

- Barasingha (*Rucervus duvaucelii*)
- Sambar (*Rusa unicolor*)
- Spotted deer (*Axis axis*)
- Blackbuck (*Antilope cervicapra*)
- Gaur (*Bos gaurus*)

Birds

- Ostrich (*Struthio camelus*)

Other Fauna

- Rhinoceros (*Rhinoceros unicornis*)
- Giraffid species resembling **Sivatherium**

Insectivore

- Long-Snouted Insectivore

5.1 Ostrich Pictograph:

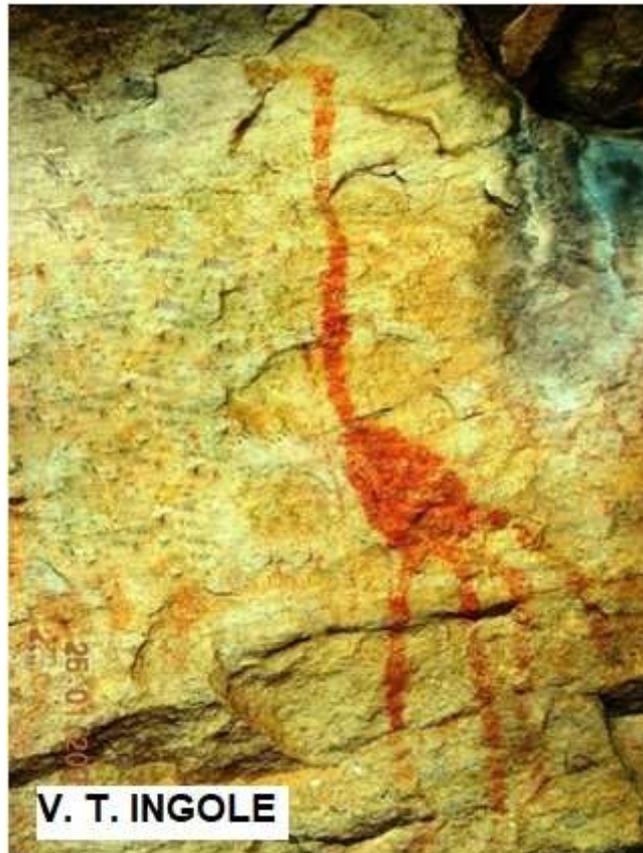


Figure 2

The Mungsadev shelter contains a striking depiction of a long-necked bird whose morphology closely matches that of the African ostrich. Distinctive characteristics include:

- elongated neck
- plume-like feathers
- flat tail fan
- long legs

Morphological comparison with ostrich depictions from other prehistoric sites shows strong similarities.

5.2 Sivatherium-Like Animal:



Figure 3

One image depicts a large herbivore with a heavy body and distinctive cranial projections resembling the ossicones of **Sivatherium giganteum**, an extinct giraffid species known from the Siwalik Hills and other fossil sites across the Indian subcontinent.

5.3 Long-Snouted Insectivore:



Figure 4

Another pictograph shows a mammal with:

- elongated tubular snout
- upright ears
- compact body
- rounded clawed feet

The morphology resembles that of insectivorous digging mammals. While the figure bears some resemblance to the African aardvark (*Orycteropus afer*), no fossil evidence currently confirms the presence of this species in India. The depiction may therefore represent either an extinct regional analogue or a stylized representation of another insect-feeding mammal. However, During field observations around the Ambadevi shelters, several insectivorous mammals such as porcupines were frequently encountered, and pangolins were occasionally reported in the surrounding forested terrain. The presence of numerous ant and termite mounds in the area suggests that the local ecosystem remains favourable for insectivorous fauna. In this ecological context, one pictograph from the site shows morphological features that bear some resemblance to an aardvark-like animal. Although the aardvark (*Orycteropus*) is not known from the modern fauna of the Indian subcontinent and such an identification must therefore remain tentative, the pictograph is noteworthy because of its distinctive snout and ear morphology. Recording this observation may prove useful for future comparative studies should additional palaeontological or archaeological evidence emerge

5.4 Rhinoceros:

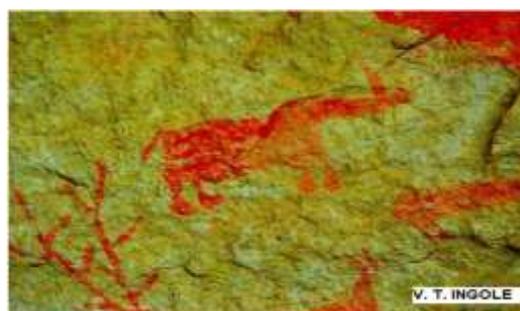


Figure 5

The rhinoceros pictograph appears consistent with the proportions of the **Indian rhinoceros** (*Rhinoceros unicornis*), which fossil evidence indicates once ranged across central India during the Late Pleistocene.

6. Discussion:

The Ambadevi pictographs present a rare convergence of iconographic and paleoenvironmental evidence. The depiction of animals corresponding to Late Pleistocene fauna, combined with the chronological anchor provided by ostrich eggshell dating from nearby sites such as Chandresal and Patne, suggests that the paintings may represent an early phase of representational art in India. Ostrich remains from Central India, including eggshell evidence discussed by Ingole (2021), further support the presence of this species in the region during the Late Pleistocene and provide an important ecological context for interpreting the Ambadevi pictographs.

Importantly, the paintings appear stylistically coherent and lack the complex layering commonly observed at many other Indian rock-art sites. This suggests that the Mungsadev pictographs may belong to a relatively limited artistic phase rather than representing multiple superimposed chronological layers. From a cognitive archaeological perspective, the anatomical accuracy of several depictions—particularly the ostrich and giraffid figures—suggests direct observation of these animals. Such fidelity is less consistent with purely symbolic or mythological representation and may reflect the artists' familiarity with the contemporary fauna of their environment.

When compared with other Indian rock-art traditions, the Ambadevi assemblage presents a notable combination of:

- faunal realism
- ecological specificity
- potential chronological anchoring

Taken together, these characteristics support the possibility that the Ambadevi paintings may represent an early representational tradition, tentatively placed within the Late Pleistocene, possibly around 35,000 BCE.

7. Conclusion:

The Ambadevi rock shelters represent a significant archaeological discovery with important implications for the study of prehistoric art in South Asia. The pictographs form a distinctive assemblage that combines faunal realism with a clear ecological context. The depiction of animals consistent with Late Pleistocene fauna, together with regional ostrich eggshell evidence documented from Central India (Ingole 2021), provides an important chronological framework for interpreting the site. Stylistically coherent execution and the absence of complex superimposition further suggest that the Mungsadev pictographs belong to a relatively early artistic phase.

Unlike many previously documented rock-art sites in India, the Ambadevi assemblage appears to integrate three notable characteristics:

- realistic faunal depictions
- a potential Late Pleistocene ecological context
- independent chronological indicators

Taken together, these observations suggest that the Ambadevi pictographs may represent one of the earliest known traditions of representational rock art in the Indian subcontinent, possibly dating to the La

te Pleistocene.

Further research—including pigment analysis, stratigraphic excavation, and AMS radiocarbon dating—will be essential to refine the chronology of the site. If confirmed, Ambadevi could contribute substantially to our understanding of early human symbolic expression, ecological awareness, and artistic traditions during the Late Pleistocene.

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