

# 51,200 Year Old Cave Painting Discovered

### Source: IE

## Why in News?

Recent research has revealed that the world's oldest known figurative cave painting is approximately 51,200 years old, as determined by the use of a new dating technique.

 The painting is located on the ceiling of a limestone cave in the Island of Sulawesi, Indonesia.

# What are the Key Observations about the Painting?



- Artistic Representation: The painting shows:
  - A **pig standing still** with its mouth partly open.
  - Three human-like figures surrounding the pig:
    - The largest figure with **outstretched arms** gripping a rod.
    - The **second figure in front** of the pig, holding a stick.
    - The **third figure upside-down**, with legs pointing upwards and one hand reaching toward the pig's head.
- Technique Used in Dating:
  - Researchers dated rock art using <u>uranium</u> series (U-series) analysis of <u>calcite</u> <u>deposits</u> in limestone caves.
    - Researchers used laser beams to compare the ratio of a specific isotope of uranium to a specific isotope of thorium in order to determine the age of the paintings.
      - An isotope is a variant of an atom within the same element, sharing

the same atomic number and chemical properties but differing in atomic mass and physical characteristics.

- This method was also used to date another cave painting at Leang Bulu' Sipong 4, initially estimated to be 43,900 years old.
  - The findings showed the painting is at least 4,000 years older than previously thought.
- There is a significant amount of rock art in locations such as Madhya Pradesh in India, but there has **not been a dating method of this kind.** 
  - The <u>oldest paintings of Bhimbetka</u>, Madhya Pradesh are estimated to be around 30,000 years old.

#### Significance:

- Researchers found that figurative art of humans and animals in scenes has deeper historical roots than previously thought.
  - <u>Neanderthals</u> began marking caves around **75,000 years ago**, but their markings were non-figurative.
- This not only provides insights into the cultural practices of early humans but also suggests
  the emergence of a sophisticated narrative tradition that employed visual arts to
  represent the relationships between humans and animals.

# **Bhimbetka Rock Paintings**

- Location: It is located south of Bhopal in Vidhyan ranges of Madhya Pradesh with rock shelters having more than 500 rock paintings.
  - The caves of Bhimbetka were discovered in 1957-58 by V. S. Wakankar
  - It was declared a **UNESCO** World Heritage Site in 2003.
- Timeline: The oldest paintings are estimated to be 30,000 years old and have survived due to
  its location deep inside the caves.
  - There is marked continuity in occupancy of the caves from 100,000 BC to 1000
     AD with many paintings being painted on top of another.
    - In some places, there are as many as 20 layers of paintings, one on top of another
  - The paintings at Bhimbetka belong to Upper Paleolithic, Mesolithic, Chalcolithic, early historic and medieval period.
    - However, most of the paintings belong to the Mesolithic age.
- Painting Techniques: Various colours like red ochre, purple, brown, white, yellow and green are used, obtained from natural resources.
  - Haematite ores were used for red colour and white probably from Limestone.
  - Green prepared from a green coloured rock called Chalcedony.
  - The Brushes were made of plant fibre.
- Themes of the Paintings: Every-day life of prehistoric men often in stick-like human figures.
  - Various animals like elephant, bison, deer, peacock and snake are depicted.
  - Hunting scenes and war scenes with armed men.
  - Simple geometric designs and symbols.

# **UPSC Civil Services Examination, Previous Year Question (PYQ)**

#### Prelims:

- Q. The well-known painting "Bani Thani" belongs to the (2018)
- (a) Bundi school
- (b) Jaipur school
- (c) Kangra school

(d) Kishangarh school
Ans: (d)
Q. The painting of Bodhisattva Padmapani is one of the most famous and oft-illustrated paintings at (2017)
(a) Ajanta
(b) Badami
(c) Bagh
(d) Ellora
Ans: (a)
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