

The Chauvet Cave: a scientific adventure

From 15 October 2024 until 11 May 2025
At The Cité des Sciences et de l'Industrie

A masterpiece and a unique testimony to our past, since its discovery in 1994 – in a remarkable state of preservation – only the scientists working there have access to the Chauvet Cave.

Who hasn't dreamed of donning a scientist's coat and following in the footsteps of those who have been exploring the cave for over twenty five years? Of exploring the application of archaeology, palaeontology, ichnology, acoustics, geomorphology and also mathematics, genetics and digital science to research within a prehistoric cave? Such is the unique experience that will be on offer from 15 October at *The Chauvet Cave: a scientific adventure* exhibition at The Cité des sciences et de l'industrie.

Designed in partnership with the Centre national de la recherche scientifique (National Centre for Scientific Research, CNRS), the exhibition gives an opportunity to explore research in action, which calls on a number of disciplines in an attempt to unlock the secrets of this decorated cave that acquired World Heritage Site status in 2014. *The Chauvet Cave: a scientific adventure* thus offers open access to the commitment of enthusiastic researchers who are attempting to improve our knowledge of the origins of our societies.

————— **Bruno Maquart, Chairman and CEO of Universcience**

On 15 October 2024, The Cité des sciences et de l'industrie will be opening its new temporary exhibition, *The Chauvet Cave: a scientific adventure*, which is devoted to research activities within the Chauvet Cave.

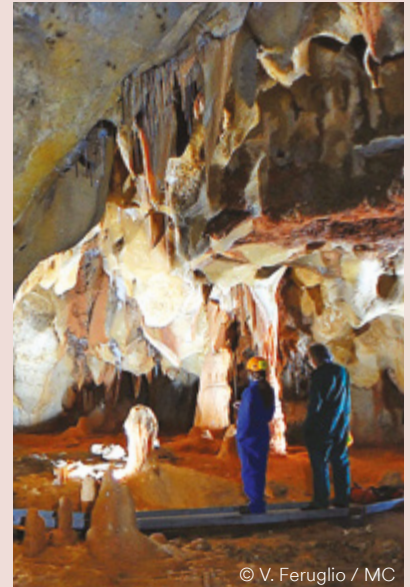
Discovered in 1994, this outstanding site has been preserved by natural means for 21,500 years. Everything within it remains intact and dates from the Palaeolithic Period. Unrivalled in the wealth, quality and age of its archaeological remains and in particular its cave paintings, the Chauvet Cave has never been open to the public. Conservation and protection measures have been in place since its discovery.

Since 1998, scientists have been studying the site under very specific conditions: 4 weeks of combined field study annually in March when the cave's CO₂ levels are at their lowest. With very few exceptions, the researchers are not allowed to dig; they merely observe and take tiny samples for dating.

By displaying, the items studied and the tools employed, *The Chauvet Cave: a scientific adventure* exhibition offers an immersion in the scientific team's research activities. Visitors will be invited to step into the scientists' shoes and share the adventure of the researchers who decipher the wall paintings and analyse the remains of bears and wolves, the traces of fires, the stalactites and footprints.

The exhibition is divided into four sections:

- The Cave
- At a crossroads of research
- Living beings
- Cave art



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Recommended age: 9+

A trilingual exhibition
(French, English & Spanish)

accessible to visitors with specific
requirements (Braille and LSF-
French sign language)

In partnership with:
the Centre national de la
recherche scientifique
(National Centre for Scientific
Research, CNRS)

With the support of:
the Association pour le
Rayonnement de la Grotte
Chauvet Pont d'Arc

*The Chauvet Cave: a scientific
adventure* exhibition is part of
the "Beware, fresh science!"
editorial line; this includes
exhibitions presenting
scientific advances and their
impacts, both on the physical
world and on living beings.

It is concerned with all
scientific subjects that
provide us with new
knowledge.

The exhibition's itinerary

■ THE CAVE

On 18 December 1994, attracted by a draught escaping from limestone escarpments in Ardèche, three speleologists, Jean-Marie Chauvet, Éliette Brunel and Christian Hillaire discovered a huge cavity containing intact remains dating from the Upper Paleolithic. Thanks to the collapse of the limestone cornice marking its entrance, this cave remained hidden for over 21,500 years, which accounts for its outstanding state of preservation.

Regarded as one of the oldest known human masterpieces, this cavity also contains a number of clues to the past: studies of the walls and volumes, the mapping of remains and the analysis of atoms within the stalagmites reveal information about paleoclimates, the formation of the Ardèche gorges, and the animals and groups of humans who were alive during this period. In this initial section of the exhibition, models, plans and photographs help visitors understand how this cave was formed and the transformations it underwent during Prehistoric times and up until the present day.

■ AT A CROSSROADS OF RESEARCH

The Chauvet Cave is both a jewel of cave art and an immense and complex landscape sculpted from the limestone by water. It is also an archive of the history of the cavity and the passage of living beings. It preserves their bones, their footprints and claw marks, evidence of their hibernation, the remains of fires, etc. To improve our understanding of this treasure of humanity, numerous scientific disciplines are involved in studying it.

This section of the exhibition focuses on the interdisciplinary aspects of research within the Chauvet Cave. It offers the public an opportunity to experience these scientists' annual trips into the cave's interior. Visitors can learn about the equipment and techniques involved in working within this confined underground space. Such as, wearing a helmet, using a pole to test the acquisition of images of a cave bear skull, using software that generates 3D models of the remains within the cave, and experimenting with lighting and its orientation in order to reveal drawings engraved on the walls that are invisible to the naked eye.

■ LIVING BEINGS

In the Upper Palaeolithic, the Chauvet Cave was frequented by numerous animals, and the cave bear was its primary occupant. Weighing approximately 400 kg, it was much larger than today's brown bear. However, it was not the only one. Bats were there long before the bears. Wolves ventured surprisingly far into the cave. Why? Were they alone? In packs? Moreover, humans went there to draw and to perform rituals. Did they frequent the cave at the same time as the bears?

To answer such questions, scientists are studying the evidence of this activity in order to improve their understanding of the behaviour of extinct species. In this third section, visitors are therefore invited to learn about the analysis of excrement and the identification of footprints, the observation of the remains of fires, as well as the cave's acoustics.

■ CAVE ART

The Chauvet Cave's drawings date from around 38,000 years ago: this is the oldest known cave art in Europe, even older than the Lascaux Cave's wall painting, which date from around 20,000 years ago. Perfectly preserved, these drawings reflect a worldview and beliefs that were very different to those of today's societies.

In this fourth and final section of the exhibition, the public can study cave drawings by their reading on infographic media, learn about the wealth and mastery of artistic techniques, and manipulate tracings so as to understand the order in which lines were drawn on the decorated panels. The archaeologists' interpretation of cave art improves our understanding of very early human societies.

Around the exhibition

FILM AT THE PLANETARIUM

The Chauvet Cave – hors du temps (suspended in time)

Age: 12+ | Duration: 32 mins

Through the lens of the photographer Raphaël Dallaporta, *The Chauvet Cave – suspended in time* takes a contemplative and contemporary look at this jewel of archaeology. The artist projects his panoramas of the cave's interior onto the planetarium's hemisphere. His work has also benefited from the scientific team's photogrammetric data.

This event offers the public an alternative way to grasp temporality, the movement of the world and space; the associated loss of points of reference is induced by anamorphosis, light, etc. An original narration linked to astronomy, and dominated by contemplation, patience and our relationship with nature.

Produced by Raphaël Dallaporta, in collaboration with on-situ. A Universcience production.



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Key dates

18 December 1994

Discovery of the Chauvet Cave by three speleologists, Jean-Marie Chauvet, Éliette Brunel et Christian Hillaire

1998

Scientific studies begin, first interdisciplinary team at a prehistoric site

2014

The Chauvet Cave is listed as a UNESCO World Heritage Site

2024

Anniversary of the Chauvet Cave's discovery and its listing as a UNESCO World Heritage Site

DEMONSTRATION

Mineral nuances

Workshop: age 9+ | From October 2024 | Duration: 45 mins

Ochres, haematites, charcoals, etc.: visitors experiment with mineral inks and the techniques used around 30,000 years ago to create the most beautiful cave paintings!

LECTURE

Grotte Chauvet: une plongée dans l'univers de nos ancêtres préhistoriques (An in-depth look at our prehistoric ancestors' universe)

Tuesday 10 December at 2:30p.m.

Discovered in 1994, the *Chauvet Cave* shattered our vision of prehistory. Occupied for the first time by humans 38,000 years ago, its paintings are the oldest in the world. How does this fabulous bestiary (horses, lions, bears, bison, rhinoceros, mammoths, etc.) enable us to access the culture and myths of our Palaeolithic ancestors?

By Carole Fritz, researcher at the CNRS, director of the Centre de recherche et d'étude pour l'art préhistorique Émile Cartailhac (Émile Cartailhac Prehistoric Art Research and Study Centre, CREAP), Toulouse.

PUBLICATIONS

The Grotte Chauvet: a scientific adventure | Exhibition journal

Designed as a souvenir of the exhibition, this journal focuses on the interdisciplinary nature of archaeological research. It uses the following themes to cover techniques, roles and researchers' discoveries within the Chauvet Cave: social anthropology and cave art, historical dating, karstology and palaeontology.

Author of the texts and interviews: Olivier Quezada

Scientists interviewed: Carole Fritz, director of research at the CNRS and director of the centre de recherche et d'étude pour l'art préhistorique Émile Cartailhac (Émile Cartailhac Prehistoric Art Research and Study Centre, CREAP) at the Maison des sciences de l'homme in Toulouse; Hélène Valladas, researcher at the Centre des faibles radioactivités (Low Radioactivity Centre) and the Laboratoire des sciences du climat et de l'environnement (Climate and Environmental Sciences Laboratory, LSCE); Jean Jacques Delannoy, geomorphologist and anthropo geomorphologist; Philippe Fosse, CNRS research fellow and palaeontologist attached to the Laboratoire Méditerranéen de Préhistoire Europe Afrique (Mediterranean Laboratory for Prehistory in Europe and Africa, LAMPEA).

Price: €6 (provisional price). On sale in the museum's shop and ticket office, on site and online from 11 October 2024.

CHILDREN'S BOOK

Grotte Chauvet – dans la peau des scientifiques (through the eyes of the scientists)

by Jean-Baptiste de Panafieu | Illustration: Grégoire Mabire.

Jointly published by Éditions Glénat Jeunesse and The Cité des Sciences et de l'Industrie.

A veritable human masterpiece, the Chauvet Cave fascinates scientists who have been attempting to unravel its mysteries since its discovery almost 30 years ago... But who are these scientists? What conditions govern their study of the cave? How are scientific campaigns conducted? What methods and techniques do they use? Finally, how do they continue to study it upon their return to their laboratories? This 3-in-1 book (fiction, documentary and games) enables young readers to explore the cave from the point of view of the researchers who are studying it and, more broadly, this work provides them with points of reference for this long and enthralling page of human history: prehistory!

Paperback with flaps, 112 pages, format 16 x 21 cm, price: €12.50, age: 8+.

On sale in bookshops from 9 October 2024.



cite-sciences.fr



Informations pratiques

Cité des sciences et de l'industrie

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75019 Paris
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Opening times

Open every day except Mondays from 10 am to 6 pm, and until 7 pm on Sundays.

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Rates

→ **€13 and €10** (concessions for visitors aged under 25, students, visitors aged 65+, teachers and large families)

→ **€12** ("sustainable mobility" rate for visitors arriving by bike or an equivalent mode of transport: scooter, Segway, etc.)

→ **Free** for children under two, jobseekers and visitors in receipt of Income Support, and individuals with disabilities and their attendants.

Tickets provide access to the exhibitions on levels 1 and 2, to the Argonaut and the Planetarium.

Press Contact

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