

CosmoCaixa explores the meaning of colour in the world through an exhibition of National Geographic photographs

- **Until April 10, the CosmoCaixa Science Museum will host an exhibition of 70 photographs by renowned National Geographic photographers, images that capture the vast colour palette which shapes our world.**
- **The show explores the importance of each colour and its connotations. In such a diverse place as planet Earth, colours do not have the same meaning in all regions. In India and Japan, red signifies purity, while in Africa it is the colour of mourning and in other countries it is associated with strength and power.**
- **The photographs, by such practitioners as Joel Sartore, Steve McCurry, Lynn Johnson and Jodi Cobb, among others, capture the essence of landscapes, cultures and traditions around the world, from Papua New Guinea to India, from Italy to the Democratic Republic of Congo, from Chile to the United States.**

Barcelona, 14 February 2023. From today until April 10, the CosmoCaixa Science Museum will host the exhibition *Colours of the World*. The show enables visitors to discover the huge variety of landscapes on our planet and the colours that characterise them.

Through 70 images by National Geographic photographers, the exhibition invites visitors to reflect on colour, an element that surrounds us at all times and is capable of influencing how we feel, filling us with strength, soothing us or stirring our emotions. Highlighting all their tones and nuances, the exhibition makes colours the central focus of this show.

In striking photographs of the misty blues of the morning light, the bright purples and reds of the setting sun, the intense greens of the fields or golden autumn

leaves, viewers will find an inspiring reflection on the meaning of the different colours, their qualities and their symbolism throughout history.

Through the work of prestigious National Geographic photographers, including multi-award-winning practitioners like Joel Sartore, Steve McCurry, Michael Nichols, Lynn Johnson, Jodi Cobb, Paul Nicklen and Frans Lanting, we will learn about the connotations of colours in cultures all over the world as we contemplate a wide range of yellows, oranges, reds, violets, blues, greens and whites.

A tiny difference in the wavelength of light determines whether we see red or blue, and the human psyche has given these colours connotations that have helped to shape cultures around the world. Humankind has been attracted to colour since time immemorial. One of the first colours to become an object of desire was Tyrian purple, extracted from the glands of snails in the Mediterranean Sea and used by the ancient Phoenicians. The cost of producing it was so great that only the rich could afford to have garments dyed in this colour. As a result, a symbolism grew up around this colour, also known as royal purple.

After its sojourn at the CosmoCaixa Science Museum, the show will open at CaixaForum Zaragoza in July. Moreover, an adapted version will travel to other cities and towns in Spain under the aegis of Art in the Street, a programme organised by "la Caixa" Foundation to bring science and culture to outside spaces.

EXHIBITION SECTIONS

Sections are devoted to each of the seven colours chosen for the exhibition. There are ten photographs per section, as well as short introductory texts discussing the meaning of these colours around the world.

YELLOW

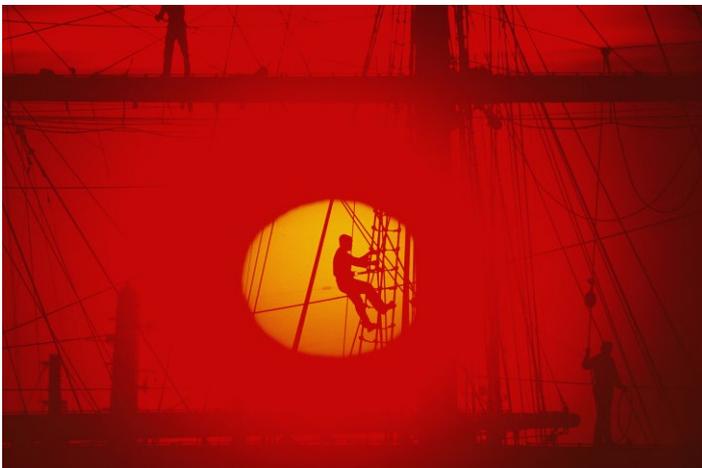
An aerial view of a forest bathed in autumnal colours in Acadia National Park, Maine (United States); a farmer raking hay into windrows in Washington State (United States); a tiny gelada baboon on its mother's back in the Simien Mountains National Park (Ethiopia): these are three of the photographs here that reveal the colour yellow in all its splendour.

Yellow is joy. It is the sun that illuminates the planet and brings growth, warmth and relaxation. It is serenity. Yellow can disappear into the clouds and become so close to white that we wonder whether that ephemeral colour was ever really there. Yellow can be seen as symbolising the intellect, since the illumination provided by this bright colour parallels the illumination of the human mind, but it can also symbolise illness and healing.

ORANGE

Orange is a colour that often goes unnoticed, as at times it is overshadowed by red or yellow. It exists in the bright leap into the warmer months, but also in the slow transformation from summer to winter, when green leaves turn golden and orange. Orange reveals its power at dusk, as we can see in the photograph of gnus beside the Zambezi River, and in the embers of a fire, as in the image of the Mount Nyiragongo volcano in the Democratic Republic of Congo. But it is also a serene colour, emanating tranquillity in, for instance, the soothing tones of Buddhist monks' robes. This aspect is reflected in a photo of a young monk in Cambodia.

RED



A sailor climbs the rigging of a ship at sunset. Buenos Aires, Argentina - Bruce Dale / National Geographic

Nature uses red to attract and to demonstrate power and strength. It is a colour that perseveres throughout all the seasons: even in winter, when everything dies, red lives on in bright holly and winter berries. Poison dart frogs use bright red colouring to warn predators of their deadly

dangerousness. Red is not subtle. In our culture, it signifies love, passion and

fire, as in the image of the firework display in Sydney included in the exhibition. In India, from which we can see an image of the Holi festival, it represents purity; however, in Africa it is the colour of mourning. Red is blood, like the blood on the back of a devotee during the celebration of Ashura Day.

BLUE

On Planet Earth we are constantly surrounded by shades of blue: in a lake it is soothing and in the sky it beautifully reflects immensity. In the ocean, however, it directs our gaze towards the sea floor, towards the unknown. An example of this is in the photographs of a goby resting on a giant clam on the Indonesian seabed and a California sea lion hunting for fish to feed on in a kelp forest on Cortes Bank, a seamount off the coast of San Diego. Since ancient times, moreover, blue has been closely associated with religion, as we can see in this section, from the serene turquoise tiles in mosques to the bright cerulean that crackles between the fingers of Zeus in Greek mythology. Blue is powerful, mystical.

VIOLET



A white coat harp seal rests on ice under a twilight sky. Gulf of Saint Lawrence, Canada- Brian J. Skerry / National Geographic

The colour mauve is mysterious. Lavender, plum, aubergine – all the shades of purple are surprisingly different. Purple is gentle but insistent. We see it in the early morning hours before the sun rises over the horizon, as in the image of a harp seal resting on the ice in the Gulf of St. Lawrence in Canada under the twilight sky. We see it, too, in another tone, in the sky

during a lightning storm like the one in the sky over Santa Fe, New Mexico. And purple symbolises royalty in the rich velvet hues of royal robes and crowns, or in the glittering centres of gemstones.

GREEN

Green is a manifestation of life. It is resurgence, renewal. The first sprouting of a green plant from the earth announces the rebirth that follows winter. In the photographs in this section, we see not only the splendour of green that surrounds a farmer harvesting the first tea of the year in Japan, but also the hardship when it does not appear, in the case of a woman walking through a field left barren by the lack of monsoon rains, which has led to the failure of the millet crop in one Indian state. And shades of green are also present in the

animal world, as we see in the image of a male resplendent quetzal or the wings of green Pieridae butterflies in Bolivia.

The existence of green reflects health and vitality. Green keeps us all alive. Our planet's vast green system exhales the oxygen we humans inhale and supports a cyclical relationship of life and death that must be protected and preserved.

WHITE

In the exhibition, a bride and her guests dance in the street in Skopje, Macedonia. For white is the colour of beginnings and of endings. The colour of purity. Ethereal, immaculate and pristine.

Its delicacy can be seen in the plumage of certain birds, such as the adult king penguin in South Georgia in one of the photographs here. But it can also be overwhelming, absorbing all other colours, as in the image of the Bonneville Salt Flats in the United States. White is the colour of nothing and the colour of everything.

About the National Geographic Society

The National Geographic Society is a global nonprofit organization that uses the power of science, exploration, education and storytelling to illuminate and protect the wonder of our world. Since 1888, National Geographic has pushed the boundaries of exploration, investing in bold people and transformative ideas, providing more than 15,000 grants for work across all seven continents, reaching 3 million students each year through education offerings, and engaging audiences around the globe through signature experiences, stories and content. To learn more, visit www.nationalgeographic.org or follow us on [Instagram](#), [Twitter](#) and [Facebook](#).

ACTIVITIES PARALLEL TO THE EXHIBITION

SEMINAR: WHY DO WE SEE COLOURS?

February 28 - March 14

Those attending this [cycle of three talks](#) by Doctor Celia Sánchez-Ramos will learn about the relationship between light and colour and how we perceive colour.

- ***Spectrums***. February 28, at 7 pm

The varying degree and intensity of light that an object absorbs, reflects and emits results in the different colours that we perceive. In this first session, our expert will address such questions as: what are the most important types of light emitters, what are colour mixtures from the physical perspective, and what are black light, blue light and ultraviolet light?

- ***Seeing colour***. March 7, at 7 pm

The visual cortex enables us to perceive colour, but how is light actually transformed into colour and how do we see it? Doctor Celia Sánchez-Ramos will discuss how we perceive colour, describing photoreceptor cells and how colour is processed.

- ***Chimeras***. March 14, at 7 pm

At times, due to lighting conditions or the angle of vision, we are unable to distinguish colours or confuse them. Our guest expert will explain why colour is sometimes misperceived and will talk about anomalies such as dyschromatopsia and achromatopsia (inability to perceive colours) and Daltonism (difficulty in distinguishing between colours), and the colour of light that can be most harmful.

The whole seminar is presented by Doctor Celia Sánchez-Ramos, PhD in Preventive Medicine and Public Health from the Complutense University of Madrid (UCM) and in Vision Sciences from the European University of Madrid. The founder of the UCM Neurocomputation and Neurorobotics Laboratory and Research Group, she has invented 17 patent families related to retinal neuroprotection based on optical elements and devices. This professor and researcher at UCM also engages greatly in the field of scientific dissemination.

GUIDED TOURS

February 14 - April 10. Saturdays at 1 pm (in Catalan) and 6 pm (in Catalan)

This [guided tour](#), led an educator, presents the key themes of the exhibition and, through conversations with the participants, contextualises them and resolves any doubts that may arise about this fascinating subject.

FAMILY VISITS: WHY IS THE SKY NOT ALWAYS BLUE?

February 14 - April 10. Saturdays and Sundays at 11.30 am (in Spanish) and 4 pm (in Catalan)

Taking both a scientific and artistic approach, this [family visit](#) enables us to learn what colour is, and to discover its basic aspects and its importance, not only in nature, but also in society and cultures around the world.

LIGHT AND COLOUR. EXPERIMENTS TO INTERPRET OPTICAL PHENOMENA

Until March 26, weekends and holidays at 12 noon (in Catalan) and 5 pm (in Spanish)

In [this workshop](#), participants will experiment with the laws of reflection and refraction, the decomposition of white light, bioluminescence, fluorescence, etc., discovering the keys to interpreting various optical phenomena. They will see what happens to white light when it passes through a glass cut in a certain way or when it strikes the surface of a mirror, and learn fun facts about how certain animals see. This activity is recommended for families with children aged 10 and over.

THEMED MENU AND TAPAS

Until March 25th. Guided tour + tapa, Fridays at 6 pm; guided tour + themed menu, Saturdays at 1 pm.

On the occasion of the exhibition *Colours of the World*, the CosmoCaixa Science Museum restaurant has prepared a three-course menu and some themed tapas, including such dishes as a reduction of prawns, inviting reflection on how the heat used to cook these crustaceans breaks down protein and releases carotenoid pigments, whose real colour is orange and bright red. Or a lemon sponge cake with orange ice cream and grapefruit segments, showing the various pastel shades of citrus fruits, among others.

Colours of the World

From February 14 to April 10

CosmoCaixa Science Museum

C. Isaac Newton, 26, Barcelona

Times

Monday to Sunday, including holidays, from 10 am to 8 pm

<https://cosmocaixa.org/es/cosmocaixa-barcelona>

<https://fundacionlacaixa.org/es/>

General admission: 6 euros (includes admission to the museum and exhibitions)

Admission free for CaixaBank customers and children under 16

"la Caixa" Foundation Media Relations Department

Andrea Pelayo: apelayo@fundacionlacaixa.org / 618 126 685

Press Room: <https://prensa.fundacionlacaixa.org/en/>

 @CosmoCaixa #CosmoCaixaColoursoftheWorld