

CosmoCaixa reveals the secret forms of nature in the new exhibition

Nanocosmos

- The CosmoCaixa Science Museum presents the premiere of *Nanocosmos: the reality hidden to the human eye*, a new exhibition featuring micrographs by the writer, artist and filmmaker Michael Benson. The images were painstakingly created using scanning electron microscopes at the Canadian Museum of Nature.
- The new show, open to the public free of charge in the Plaza at CosmoCaixa until June 22, comprises 36 black and white images that fuse art and science to reveal the beauty of things invisible to the naked human eye: from the antennae and proboscis of a butterfly to the wing of a dragonfly and the stamens of a flower.

Barcelona, 1 June 2023. At an exhibition that opens today, the beauty and unimaginable forms of the microscopic world will be revealed at the CosmoCaixa Science Museum, which is the first stop for the travelling exhibition *Nanocosmos: the reality hidden to the human eye*. Produced by "la Caixa" Foundation, *Nanocosmos* presents 36 photographs taken with an electron microscope by the artist [Michael Benson](#), which give a truly different vision of flora and fauna by examining their subjects on the smallest scale.

Art, high technology and science merge in this new exhibition, which invites the visitor on a journey through the natural world in a sub-millimetric dimension. Benson, who has always been fascinated by the boundaries between what we can and cannot see, creates breath-taking, revealing images of life invisible to the naked eye.

By using scanning electron microscopes at the Canadian Museum of Nature in Ottawa, the artist opens up new avenues for this technology, until now exclusively at the service of science. Rather, Benson applies these devices to create art in the shape of 36 painstakingly processed and assembled black-and-white digital images that reveal the beauty and the complexity of diverse flora and fauna.



The images show, for example, the structures of diatoms, a group of unicellular algae that are one of the most common types of phytoplankton. Diatoms absorb 10-20 billion tonnes of carbon dioxide and generate 20-50% of the total oxygen produced on the planet each year.

Nanocosmos also enables visitors to examine radiolarians at microscopic level. Radiolarians are a type of zooplankton found in all the Earth's oceans that have a skeleton which is almost always composed of silica and geometric shapes similar to regular polyhedrons.

The relationship between insects and plants is also the subject of Benson's attention and focus. The exhibition features an image of an insect as small as an aphid, 1-3 millimetres in length. The micrograph even shows its stylet, which it uses to pierce plants and extract nutrients. We can also see the hairy appendages of butterflies, known as palps, used to taste food sources and ascertain whether or not they are edible, the eyes and antennae of a bee, and the wings of a dragonfly, which enable it to reach speeds of between 35 and 54 km/h.

The new show is the second collaboration between "la Caixa" Foundation and the American writer, artist and filmmaker. *Otherworlds. Visions of Our Solar System* by Michael Benson was the first travelling exhibition produced jointly. Still touring around cities in Spain and Portugal, *Otherworlds* features forty striking images of the planets in our solar system captured by NASA and ESA probes, and selected and treated by Benson.

Having shown us the immensity of the external universe, in *Nanocosmos* Benson now reveals other amazing discoveries, much more close at hand though invisible to the naked eye. After its premiere in Barcelona, this fascinating fusion of architecture, botany, biology and avant-garde art will later travel to several other cities in Spain and Portugal.

Both exhibitions form part of the *Art in the Street* programme, in which "la Caixa" Foundation converts various cities into open-air museums. Dissemination is a key tool for promoting personal growth, and that is why, through these exhibitions, "la Caixa" seeks to enable all audiences to discover culture and science.

About Michael Benson

Michael Benson's work focuses on the intersection of art and science. It spans a broad range of media, from large-format photographic images derived through data-mining processes, to the written word in nonfiction books and essays, to a series of illustrated books for Abrams, the leading publisher of art books in the United States (treated as image-based narratives with textual accompaniment), to films and visual-effects sequences. Benson is currently using SEM technologies (scanning electron microscopes) to focus on natural design at sub-millimeter scales for *Nanocosmos*.

In the last decade, Benson has staged a series of increasingly ambitious museum shows of digitally constructed composite extraterrestrial landscapes, both in the US and internationally. He sifts for raw images in planetary science archives and processes them, editing, compositing, and then *tiling* individual spacecraft frames. The final result is seamless large-format photographic prints of vistas currently beyond direct human experience. His touring show *Otherworlds* opened in the Jerwood Gallery of London's Natural History Museum in of 2016, and was subsequently presented in Vienna, Brisbane, Barcelona, Luxembourg, Ottawa, and Shanghai. Containing 77 digital chromogenic prints, *Otherworlds* makes the case that the visual legacy of over five decades of robotic solar system exploration constitutes a significant chapter in the history of visual representation.

CosmoCaixa presents a different gaze at the microscopic world

Last year, the CosmoCaixa Science Museum opened a [permanent space](#) to enable visitors to see what is invisible to the naked eye and which only a scientific instrument like the microscope can reveal. At the [Micrarium](#), we are invited to take part in workshops, using microscopes to examine the mineral, vegetable and animal worlds, and even to become the subjects of study ourselves, using magnifying glasses to observe certain parts of our body, such as the skin or the hair.



Nanocosmos: Reality hidden from the human eye

1-22 June 2023

CosmoCaixa Science Museum

C. Isaac Newton, 26, Barcelona

Times

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


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

<https://lacaixafoundation.org/en/>

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