



From 11 December 2023 to 10 March 2024. Disseny Hub Barcelona

A new DHub installation sparks a discussion on light pollution and Christmas lights, which it suggests replacing with a single light in the sky

- The art intervention takes the form of a life-size satellite prototype: a sphere with one side covered in mirrors to reflect the sunlight during the Christmas season with the aim of saving energy and reducing light pollution.
- "Espill: a satellite for the solstice", created by the architecture and design firm TAKK
 and curated by Jose Luis de Vicente, is also a reflection on the growing commercial
 exploitation of low space orbit and the environmental implications of this practice.
- The installation introduces the "Floating Architectures" series, a number of interventions suspended above the DHub lobby. It will be open from 11 December to 17 March.



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The **Disseny Hub Barcelona** will welcome the Christmas season with a **new speculative design installation** which will hang from the ceiling of its lobby: **"ESPILL: a satellite for the solstice"** is the work of the architecture firm TAKK. It uses the imagery of the Star of Bethlehem to trigger a discussion on the light pollution resulting from actions such as Christmas lighting or the increasing number of lights in the sky emitted by objects of human origin.

The TAKK intervention, which has been curated by Jose Luis de Vicente, the DHub's artistic director, with advice from the Institute of Space Studies of Catalonia (IEEC), takes the shape of a life-size reproduction of a satellite weighing 180 kg and with a diameter of 5 metres: a round sphere covered by mirrors on one side. The speculative project also includes an explanation of how the satellite would be sent into space, what it would look like from Earth and how it would orbit around our planet.

According to this proposal, it would be sent into space and orbit around the Earth, and the sun's rays would be refracted in its mirrors, resulting in a point of light that could be seen from different parts of the Earth each night. Whenever light was not to be emitted to the Earth, the satellite would turn round to leave the mirrors on the other side.

The debate on light decorations

TAKK's aim with this intervention is to highlight how **light pollution has increased and its effects on the environment**. And it does so at a key time: Christmas. It thus **opens up the debate on Christmas lights**, which are linked to the history of the commercialisation of this celebration and the electrification of cities as a discourse of progress.

"ESPILL" uses the **imagery of the star** that, according to Christian tradition, led the Three Wise Men to Bethlehem and proposes replacing all lighting on the streets with a single point of light in the sky that would be provided by this satellite. This would **reduce light pollution** and **save energy**, because the light would be caused by the refraction of sunlight, which would not require any additional energy.

Reflection on the commercialisation of space

The installation also encourages viewers to reflect on another phenomenon that has also increased light pollution in recent years. It is the **gradual colonisation of low space orbit with satellites launched by humans for commercial gain**. The number of commercial satellites in low Earth orbit has doubled since 2019 as a result of the emergence of mega-constellations of commercial services such as StarLink. Entrepreneurs such as Elon Musk or Jeff Bezos have embarked on a race to get a share of space, driven by the good prospects of an industry that is generating a lot of commercial interest because it will make it possible to provide high-speed data transmission services between different points of the planet without having to lay cables.





These ever-increasing satellites in our planet's low orbit reflect the sun and end up emitting light onto the Earth's surface, something that is starting to become a worry for both astronomers and environmentalists.

The increasing amount of light emitted on Earth and in space is making it increasingly difficult to see a dark sky or the stars. Furthermore, **light pollution is extremely disruptive to natural ecosystems**. The darkness of the night has been the natural environment of many species for thousands of years.

Design-based proposals

This speculative design project by the DHub seeks to show how **design can be useful for asking questions and triggering discussions on issues of concern to society**. It also aims to **make suggestions and propose other possible scenarios.** "One of the greatest powers of design is the ability to imagine other forms of interaction, other imageries, suggest that things might be different. And, far from saying that we have found the perfect solution, this project does cause us to ask questions and seek other ways of imagining reality", emphasised Jose Luis de Vicente.

The artists: TAKK

The TAKK architecture and design firm, which was founded in Barcelona by Mireia Luzárraga and Alejandro Muiño, has been developing projects that include feminism, environmentalism and politics in architecture to trigger more democratic lives for years. The firm, whose private and public clients include FRAC-Centre Val de Loire, the Valencia Institute of Modern Art (IVAM), Barcelona City Council, FAD, Fitur, Vitra, Swatch and Hermès, has achieved an important international presence. It has received recognitions such as the COAM and FAD awards, and its work has been featured in exhibitions held at Matadero-Madrid, Santa Mònica Arts Centre, Barcelona Centre for Contemporary Culture (CCCB), MAK Vienna, TCDC Bangkok and Alcova Milano.

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