

Poetic Daylight



Royal
Danish
Academy

Architecture
Design
Conservation

This project aims to highlight daylight as one of the central elements in sustainable architecture, by emphasizing its qualitative potentials: to create perceptual, aesthetic, and poetic spaces.

Background

The building's atmosphere is to a large extent defined by the exposure to daylight. We are delighted to witness the changeability of daylight – from morning to evening – and experience how light, and darkness shape the spaces that surround us. Daylight gives us an understanding of where we are in the world and of the spaces, we find ourselves in every day.

Especially here in the Nordic region, where there are fewer hours of daylight and a lower light intensity, we must appreciate the influence of daylight in our lives and in buildings. By focusing specifically on Nordic daylight, we can create sustainable spaces full of character. Daylight have the capacity to play a crucial role in supporting the function of the spaces and thereby contributing to sustainable architecture.

In addition to being a significant part of architecture, daylight is also crucial for maintaining our health and well-being. Therefore, spaces should be designed in a way that supports the human need for daylight. By utilizing daylight as the primary source of light, we can contribute to the green transition while ensuring that we get the amount of daylight we need. This is especially important given that people spend between 80-95% of their time indoors.

Over the past two decades, major technological progress has provided both knowledge and tools to analyse daylight, which has led to the expansion of technical implementation of artificial light, sensors, and mechanical systems in buildings. However, many of these new tools are primarily focused on quantitative descriptions and often exclude the qualitative aspects of daylight that typically enrich the human perception of light and space.



Project: A pavilion for daylight

In order to create a setting for the experience of the qualitative and poetic properties of daylight and architecture, a pavilion will be built.

The pavilion will be designed as an independent freestanding building structure and will be placed in a public urban space on Gråbrødretorv in Copenhagen. The pavilion is scheduled to open late June 2023 and will be a part of the UIA – World Congress of Architecture. The central location on Gråbrødretorv will give access to everyone. The pavilion will be open every day from 9 am to 6 pm from the 30th of June to the 21 of October 2023.

The pavilion will be built in wood and have a total area of 80 m². It will be constructed so that it can be dismantled and moved after the period of display. This is significant because it emphasizes the differing experiences of daylight on different urban surroundings. For example, it will accentuate the difference between a location in a dense urban space as opposed to an open space in the city. After being on display on Gråbrødretorv the pavilion will be moved to The Danish Royal Academy on Holmen, where it will be placed by the waterfront.

The pavilion: The poetic and sustainable potential of daylight

The central part of developing the pavilion is the design of the light openings in relation to how daylight shapes spaces and the way it is experienced.

Daylight can be categorized into three types: direct sunlight, direct skylight and reflected light. These three types of light are the essence of daylight and will inspire the three spaces in the pavilion. One space will be dedicated to skylight, another to sunlight and the third to reflected light. The three spaces are linked together by a darker corridor, which creates a suitable break between the three different experiences of daylight. In the hallway, visitors will experience both darkness and various shades and graduations of daylight.

The three spaces with different light openings will also be oriented differently on Gråbrødretorv. In the first space, daylight is experienced through a skylight that draws the light from the sky into the space and creates a diffused, mild, and cool daylight from the north. In the next space, the gaze is directed towards Gråbrødretorv through a large light opening that will be framed by the warm and strong sunlight from the south. In the third space, which will be located under the large old sycamore tree, daylight will be filtered through the tree's leaves and branches and let the reflected light shine through.

Information about the project:

External funding: Dreyer's Foundation

Project owner:

The Royal Academy, Architecture, Design and Conservation

Institute of Architecture & Design

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THE SDG PAVILIONS

The project is presented by the Danish Association of Architects and the UIA World Congress of Architects Copenhagen in collaboration with the City of Copenhagen and CPH City and Port Development. The pavilions are created in relation to the World Congress, and present activities to congress guests and visitors throughout the summer to celebrate Copenhagen as the World Capital of Architecture in 2023.



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