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### KAREN BLIXENS PLADS: MULTI-FUNCTIONAL ARCHITECTURAL DESIGN

Posted on November 6, 2019 by martabuges



Categories: <u>COBE</u>, <u>Low Density</u>, <u>Project</u>, <u>Territory and mobility</u>, <u>Urban Paradigms</u>

Tags: Auditorium, Climate change, Concrete, Copenhagen, Cycling Infrastructure, Denmark, Dome, Flexibility, Innovation, Mixed use, Multifunctional space, Open Space, Project, Public Catalyst, Stormwater Management, Topography, Transportation Systems, Urban landscape, Urban space

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At more than 20,000 m2 Karen Blixens Plads is one of the largest public squares in Copenhagen. Situated between the University of Copenhagen and the Danish Royal Library's buildings on the university's South Campus, the open and welcoming urban space is an innovative, spectacular and multi-functional architectural design that accommodates and promotes green transportation, climate change adaptation and biodiversity. The project was supported by a generous donation from the private foundation A.P Møller Fonden.

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#### **Innovative Bicycle Parking**

The combined public square and university plaza is designed as a carpet that covers an undulating terrain of small hills and breaks up the large space into smaller zones with room for activities both on and inside the hills (domes). The three bicycle hills were created as cast concrete shells, clad with hand-laid tiles in colors echoing the exteriors of the surrounding university buildings.

In addition to serving as an active meeting place for students, employees and locals, the square also contains a high-capacity bicycle parking area for the many users of the university, including 16,000 students and 2,000 employees. The innovative and unique design has room for 2,000 bicycles.

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'Copenhagen is one of the world's leading bicycle cities, with more than 40% of the city's inhabitants riding their bike for their daily commute. That requires a new and flexible approach to bicycle parking. In previous projects we have developed innovative bicycle parking solutions that form a natural element in the environment. By Nørreport Station, for example, we created the so-called "bicycle beds", and here, at Karen Blixen Plads, the solution is bicycle hills. The integrated hilly landscape creates a space with a large capacity for bicycles, two-thirds of them in covered spaces inside the bicycle hills,' says Dan Stubbergaard, architect and founder of COBE.

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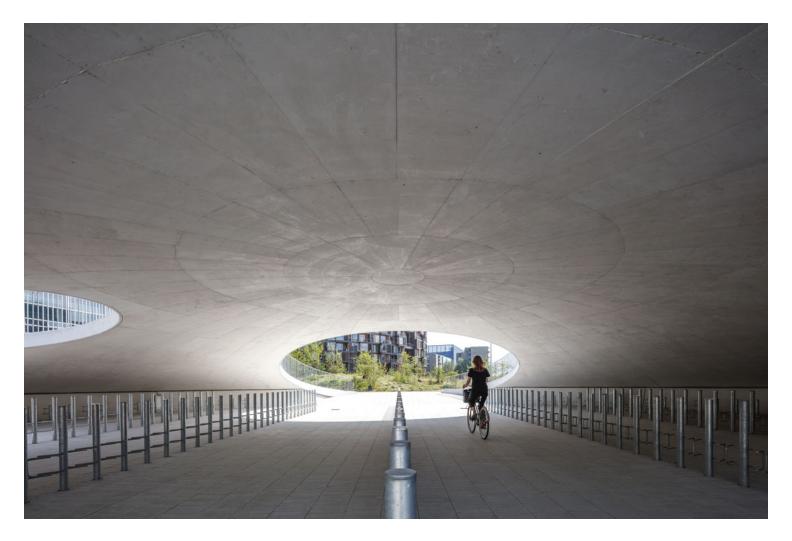
### **Interdisciplinary Collaboration**

In collaboration with CN3, COBE and EKJ's construction engineers calculated and created 3D projections of the iconic concrete dome constructions. The solution is based on a shell construction as the loadbearing structure. Aesthetically, the design provides a large airy space underneath the domes. However, while a shell construction does not normally have holes in it, these domes have large openings, which presented a significant challenge and required additional statistical analyses.

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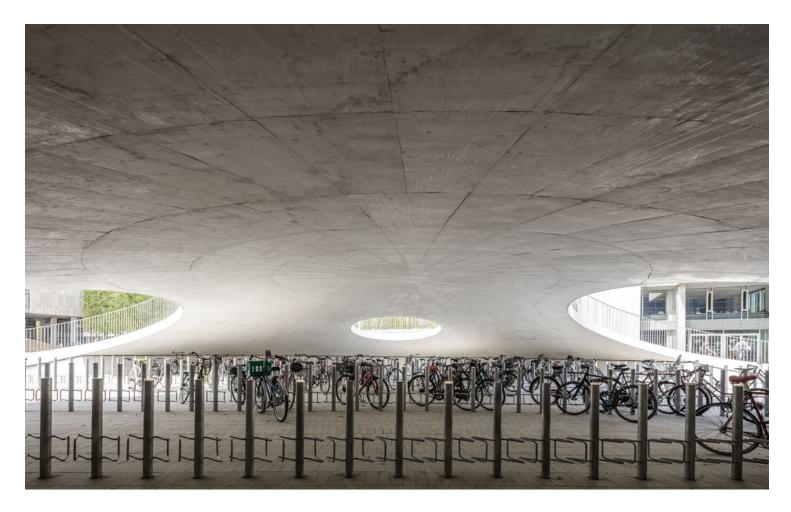
#### **Green Profile**

In a soft transition, Karen Blixens Plads brings together the university's need for urban spaces with the open landscape of the neighboring Amager Fælled (Amager Commons). The north side of the square, where the three main entrances to the university are located, is an open and multipurpose space. To the south, a hilly undulating meadowland connects the campus with the commons. In addition to bringing nature into the campus, the landscape also contributes to climate change adaptation by adding a capacity to handle stormwater. Delaying rainwater in depressions in the landscape utilizes the recreational values of the water and creates small wet biotopes that support biodiversity, enable rainwater evaporation and supplement the canal in case of extreme

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precipitation. The design uses simple, sturdy and durable materials, just as lighting and furnishings are kept to a few, simple elements to ensure a sustainable urban space. All the selected elements are low-maintenance and contribute to the square's green profile.

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#### **Outdoor Auditorium**

A central feature is an outdoor auditorium with seating for up to 1,000 people on the manmade hills. The hilltops offer additional standing room for concerts or other large public events.

'All in all, we have created a unique space based on three main principles: improving the connection between landscape and urban space; integrating optimal green spaces with a large capacity for bicycle parking; and creating a space that offers good social meeting places and learning environments. The almost cathedral-like form of the bicycle hills further offers an aesthetic experience in its own right, both when people park their bikes and when they meet at the hills for lectures, group work, concerts or Friday afternoon socializing,' says COBE's founder, Dan Stubbergaard.

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