Fulnek Kindergarten: Design that supports children’s wellbeing

Sensitive architecture tailored for children, with an above-standard approach to daylight

Designing for children raises the standard for everyone

Location
Fulnek, Czech Republic

Architects
Studio XTOPIX, Prague

Year
2025

Photos
XX

The modern kindergarten in Fulnek, designed by the XTOPIX studio (architects Pavel and Barbora Buryška in collaboration with Simona Ledvinková), is an example of architecture built on the quality of the indoor environment, generous daylight, and a strong connection to nature. Completed in 2025, the building is sensitively placed on a sloping site. Its entire southern facade opens onto a large garden, with which it is harmoniously linked by two atriums. This orientation also provides views of the historic chateau dominating the town of Fulnek.

A kindergarten designed around daylight and children's sensitive needs

"We aimed for every classroom, even a relatively small one, to feel spacious. That is why the classrooms extend towards the garden, receiving light from the left, right, front, and from above."

- Architect Pavel Buryška

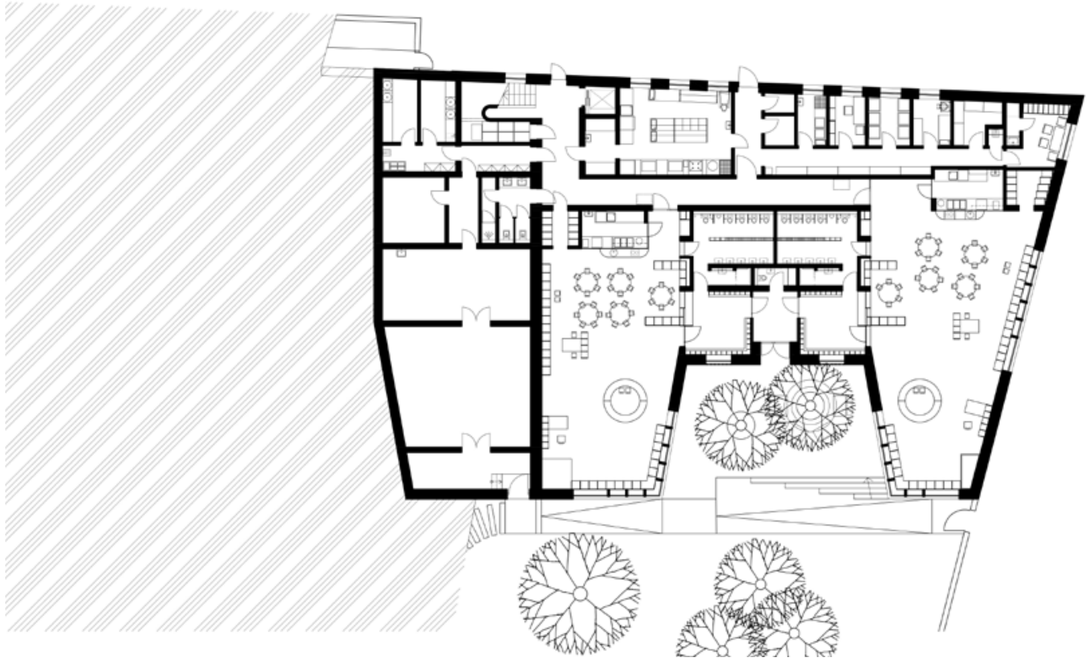
The architecture is playful, well considered and sustainable. The compact volume does not disturb the natural character of the site, with mature trees offering shade for outdoor activities. The building envelope is clad in sintered wood (a ventilated thermowood cladding – exceptionally durable, densified pine).

The low height of the building respects its surroundings and creates a subtle presence that seems to disappear and reappear among the trees. The kindergarten is energy-efficient and designed with regard to sustainability and comfort, incorporating systems such as heat recovery, green roofs and shading on all windows.

“The greatest benefit of the new kindergarten is the abundance of daylight. It keeps children connected to nature. Top lighting is essential for desk activities such as drawing, writing, crafts, and even lunchtime. Daylight definitely influences children’s behaviour and well-being and a good weather has a very positive impact.”

Edita Štecová,
Head of Kindergarten Fulnek

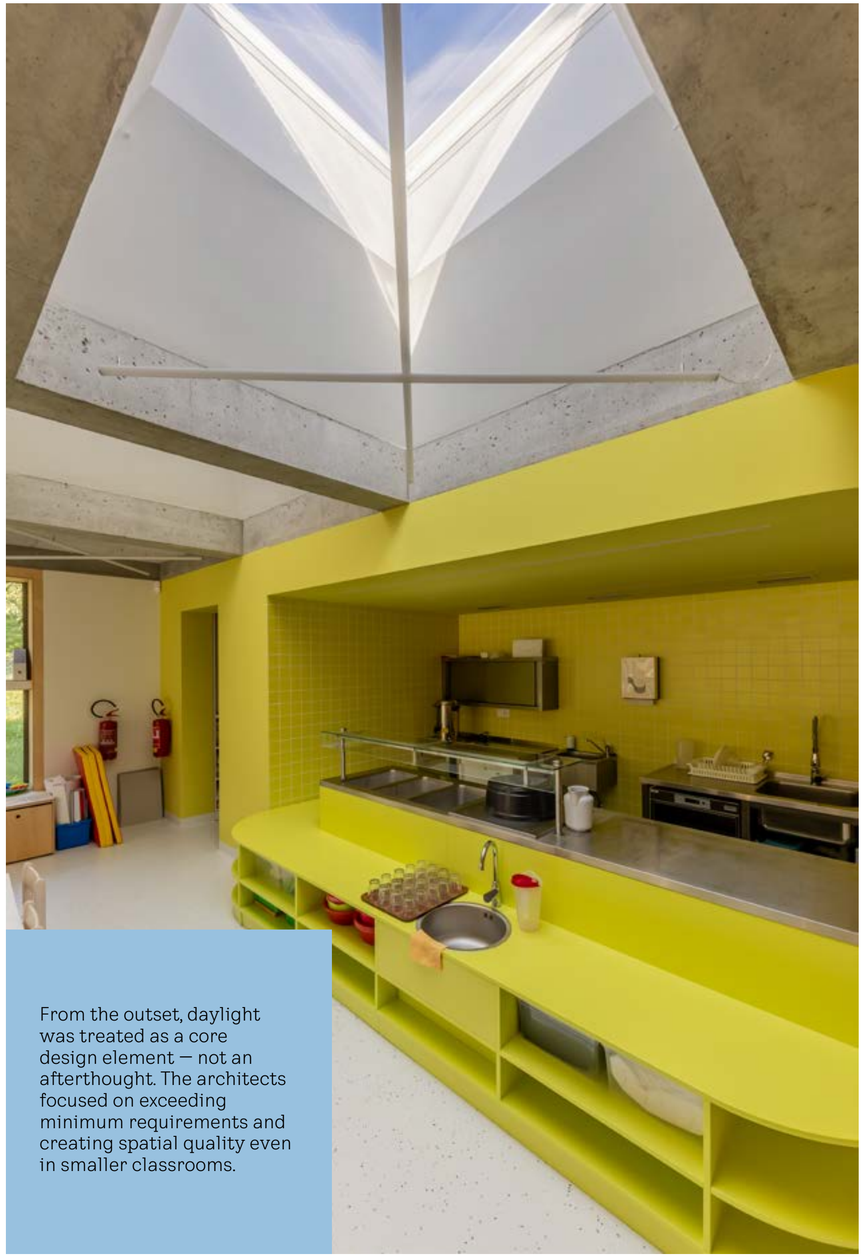
Street view



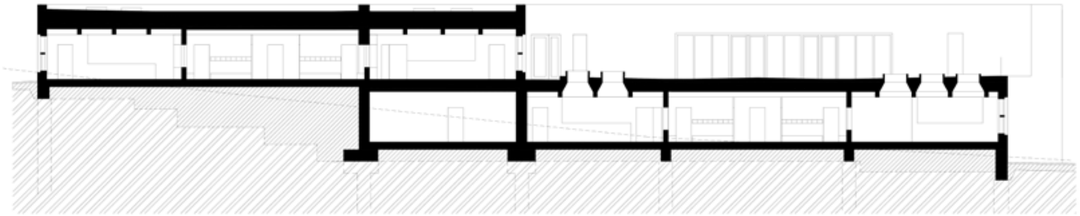
The challenges of designing for users in their formative years

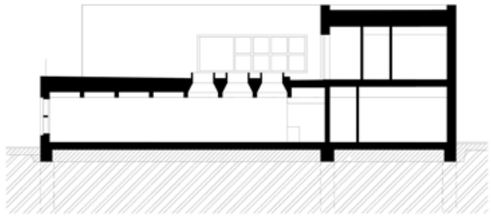
Kindergartens require specific design solutions that differentiate them from standard buildings. These include safe and intuitive circulation, clear orientation, well-defined zones for play, rest and hygiene, and sufficient space for educational and community activities.

The Fulnek kindergarten responds to these needs. Its layout is divided into children's areas and service zones, with classrooms directly connected to cloakrooms and to outdoor atriums that seamlessly link to the garden.



From the outset, daylight was treated as a core design element – not an afterthought. The architects focused on exceeding minimum requirements and creating spatial quality even in smaller classrooms.





The design process through the eyes of children

The classrooms are conceived as modular spaces divided into thematic centres. Each classroom has its own distinct colour, creating visual coherence and supporting intuitive orientation. The wayfinding system was co-created by the children themselves.

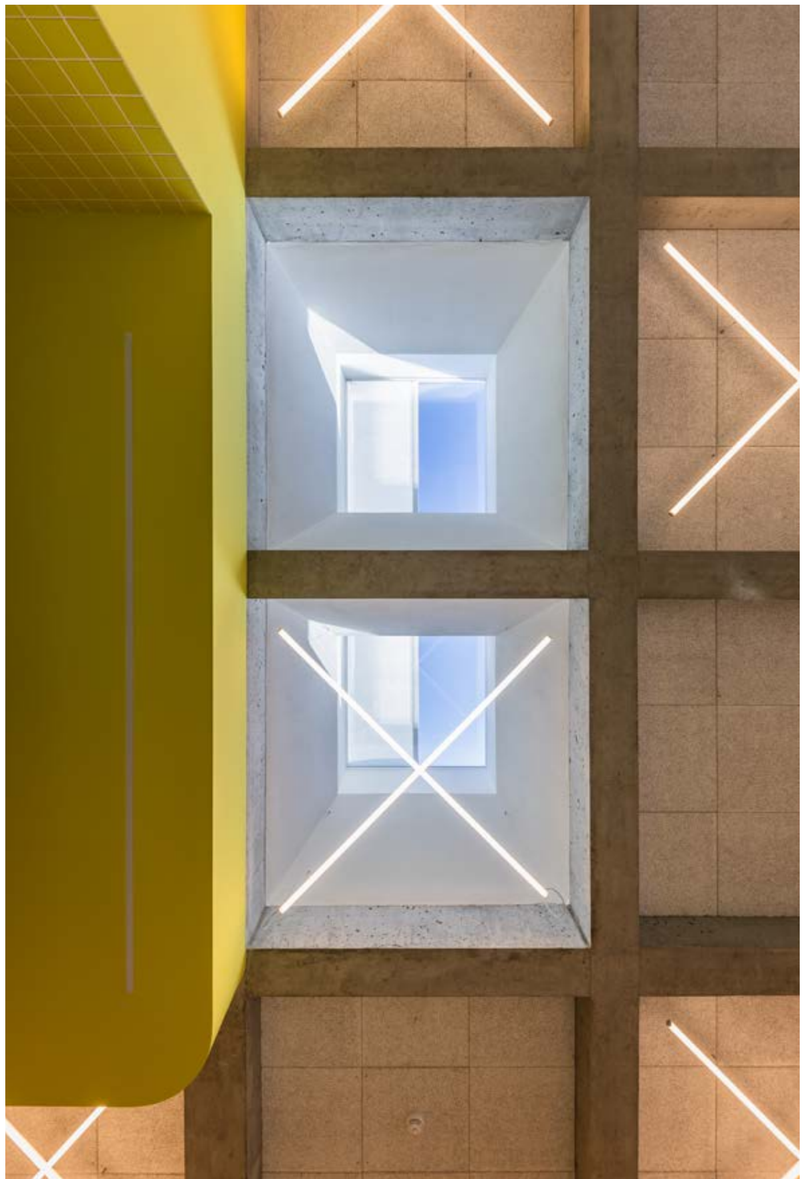
Their drawings inspired the development of an original school typeface. The entire interior is designed with children as the primary users, from the height of the window sills to the dimensions of the modular furniture.

Daylight in the kindergarten is not only an aesthetic but also a functional element. Ensuring suitable daylight conditions on a sloping, tree-filled site was a significant challenge. As architect Pavel Buryška explains, educational buildings must meet specific daylighting requirements.

Classrooms should receive daylight from at least two sides to prevent children from casting shadows on their work. However, the aim was not only to meet the standards but to exceed them, which was successfully achieved in Fulnek.

Each classroom is designed to receive daylight from three directions. In addition, soft, diffuse light enters from above through rooflights, providing even natural illumination without harsh contrasts.

"In some classrooms, the amount of daylight was not ideal. Therefore, we included large-format flat roof windows. The top lighting works incredibly well, so we decided to use it in all classrooms."
Architect Pavel Buryška.



The combined approach to daylighting creates an environment where children feel comfortable, with a variety of light settings that support daily activities and rest, while ensuring a healthy indoor environment. The VELUX flat roof windows help reduce the need for artificial lighting, contributing to the building's energy efficiency.

Young children are particularly sensitive to light, so maintaining an appropriate rhythm throughout the day is essential. Rest time, learning, activities and sleep each require different lighting conditions. The possibility to darken the rooms is important for example during afternoon rest, when daylight can be too strong, or during activities that require subdued lighting. Shading also helps to reduce visual distractions from outside and supports thermal comfort.

"Shading helps us regulate the temperature in the classrooms and supports better rest for the children. The awnings on the rooflights are very easy to operate because we control them remotely. A great advantage is that we can set the shading exactly as needed—fully open, fully closed, or halfway,"

Edita Štecová, Head of Kindergarten Fulnek

The Fulnek kindergarten demonstrates how VELUX products can become an integral part of a modern educational environment, where daylight supports not only functionality but also the emotional and psychological comfort of children.

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