The need for open spaces, social distancing, and constant ventilation have put into question our collective spaces. Open-air schools, built more than 100 years ago in a period that aimed to rethink education establishments around nature and well-being, which involved educators, architects, and doctors, allows us to ask if it is possible to open a similar dialogue around the new care necessary in the face of the pandemic.

More than a hundred years ago, when facing the proliferation of tuberculosis, open-air schools emerged in Europe and the United States. Typologically, meant moving away from the traditional cloister building and the creation of compositions based on program diagrams, and pavilion-rooms with glazed facades and folding or sliding doors, gardens and surrounding green areas, optimal orientation, and the implementation of new enclosures such as the infirmary and the solarium.

This renovation was conceived through a dialogue between the architect and the pedagogical trends of...
the time, among which the 'New School' stands out. With the purpose of putting the students' life experience front and center, flexible furniture, classrooms with subdivisions, and community gardens were designed. Through these novelties, the school building contributed to overcoming the separation between schooling and lived experience (Dewey, 1916).

Open-air schools constitute one of the first attempts of the Western school to be 'open' to the outside, thus, redefining the spatial conditions of everyday pedagogical practices. In addition, it was because of them that healthcare definitively entered the school world as a dimension with subjective, social, and environmental implications (Meckel, 2013). Open-air schools are a milestone that explain the relevance of examining the formal configuration of the 4 case studies set forth below, as well as the interests, concerns, and expertise networks that they imply (Hertzberger, 2008).
Caring Outdoors and at Heights

The Openluchtschool was designed at the center of an Amsterdam block by Johannes Duiker and Bernard Bijvoet between 1927-1930 (Griep & Bakkum, 2005). The 1,716 m² (44 x 39 m) site allocated by the municipality would end up being surrounded by buildings. Thus, the architects conceived an original solution: an open-air school at a height.

The school has an L-shaped plan with a staircase located at the middle apex. It has three floors supported by a basement on the first floor, which is composed of a classroom and a slightly buried gym that is used by the community as a playground. Each floor consists of two classrooms of equal figure and dimension (squares of 7 x 7 m) that share a core of bathrooms, a hall, and a terrace. The classrooms have a height of 3.4 m which produces a generous air volume of 167 m³. The patio-terrace faces south to receive as much solar radiation as possible.

The distancing of the façade’s supporting structure made it possible to incorporate vast glazed surfaces. A system of folding windows created multiple ventilation routs that contributed to the space sanitization, maintaining its oxygenation. A washbasin was installed inside each classroom. The school had a radiant slab which attenuated the cold and prevented respiratory diseases during winter seasons.

Openluchtschool, Amsterdam


LEYENDA / LEGEND
1 Sala / Classroom
2 Hall
3 Terraza / Terrace
To Care and to Discipline

When fascism rose to power in Italy, it nationalized the 'sea and mountain colonies,' which were managed by the Church (Frisoni, et al, 1998), and incorporated them with the new name of 'summer colonies' (National Fascist Directory, 1931). A special type of summer colony was the helio-therapeutic colony, where children and teenagers sunbathed. This explains the presence of a solarium on the roof of the Sant’Elia kindergarten designed in 1935 by the architect Giuseppe Terragni in the city of Como. The solarium was a room of $15 \times 13.5$ m which was accessed through a ramp and a staircase. The children went up to the solarium to take between 2 and 3 hours of sun a day. The kindergarten also had a medical consultation where the sick were cared for and the school population was monitored (Cani, 2009).

The kindergarten was located on a plot of 4,200 m². Exceptionally, the plan did not follow the façade line, instead, it was rotated a few degrees seeking a better alignment with the helio-thermal axis. The kindergarten was U-shaped, with its rooms revolving around a central courtyard of $25 \times 12$ m ($300$ m²). A ‘recreation room’ and a ‘refectory’ completed the main program of indoor spaces. The supporting structure, separated from the façade, allowed for the incorporation of big, glazed surfaces, some of them of double height.
Asilo Sant’Elia


LEYENDA / LEGEND

1 Acceso / Access
2 Recreatorio / Recreatorium
3 Refectorio / Refectory
4 Patio central / Central courtyard
5 Cocina / Kitchen
6 Vestuario / Dressing room
7 Patio noreste / Northeastern courtyard
8 Acceso solárium / Solarium’s entrance
9 Aula / Classroom


Caring for and Instructing a Child Threatened by Tuberculosis

The École de Plein-Air was located in Suresnes, 10 kilometers west of the center of Paris. The commission originated from the town mayor, who set out to build a school for working-class children suffering from tuberculosis. He chose a plot of land on the southern foot of Mont-Valérien, a sloping site that overlooks Paris (Rougeron, 2017).

At the top of the site the architects arranged a continuous C-shaped block of 174 m in length, made up by 3 sides connected to each other at obtuse angles. In this block the dining room, dormitories, a covered patio, showers and sinks, medical consultation, and the director’s house were accommodated. The rest of the program was arranged in a dispersed way: 8 isolated classrooms with a fan-like arrangement, connected by corridors, in the middle of the existing vegetation. This setting ensured that all the complex facilities received light from the south.

The school in Suresnes had a capacity for 350 students between the ages of 4 and 14 and fused instruction with hygiene and medical care. When they arrived, the children went through the doctor’s office. During the morning there was a break from activities and milk was distributed. At lunchtime, they had to shower. After lunch, they would nap in the bedrooms or in the solarium (Roth, 1950; Greene, 2011). The outdoor activities were complemented with swimming pools.

LEYENDA / LEGEND
1. Ala oeste hombres / Man's west wing
2. Entrada / Entrance
3. Ala este mujeres / Women's east wing
4. Solárium / Solarium
5. Enfermería / Infirmary
6. Aulas hombres / Men’s classrooms
7. Aulas mujeres / Women's classrooms
8. Piscina hombres / Men’s pool
9. Piscina mujeres / Women’s pool
Aula, escuela en Suresnes, Francia. Autor desconocido, s.f. / Classroom, Suresnes School, France. Unknown author, undated.
Fuente / source: <repositorio.unal.edu.co>.

Caring for the Individual, the Community and Nature

The decision to build a new school in Winnetka Village, Illinois, United States, was made by the superintendent of schools. The plot chosen was in Crow Island Woods, and had an area of 7.3 ha, of which 2 ha were used to build the school. With 18 classrooms and a capacity to receive 300 students between the ages of 5 and 12, the first stage of the project developed by Perkins, Wheeler and Will and Eliel Saarinen was inaugurated in 1940.

On the plan, the classrooms are quadrangular modules of 12 m side (144 m²). An L-form figure of nearly 90 m² occupies three of the four quadrants; the fourth quadrant, unbuilt, is an outdoor courtyard. The L-built space has two different spaces: one in which classes are carried out, and a workshop for individual activities.

In the workshop there is a bathroom with an exterior sink. The furniture rests against the walls, while the tables and chairs, specially designed by Saarinen for the school, allow for different arrangements. This quadrangle is a microcosm of the pedagogical program inspired by the New School. The workshop encourages the affirmation of the individual: the room promotes conversation, while the outdoor room integrates nature into the children’s formative process.


Architectures for Care and Education

More than a century ago, the tuberculosis pandemic led to the creation of open-air schools, which synthesized the medical advances and pedagogical proposals of the time, inaugurating a peculiar dialogue between architects, medics, and educators. After World War II, open-air establishments lost relevance as a building type, but managed to inspire new establishments and communities such as the Crow Island School.

Today, while the crisis generated by the COVID-19 pandemic persists, it is difficult to anticipate the modifications that the school building may experience. However, it seems an appropriate time to ask: what lessons do open-air schools offer regarding the potential of shared work between architects, medics, and teachers? Is there a capacity today for such a dialogue? How can architects, medics, and educators contribute to rethinking the school as a humanity project?

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Bibliografía / Bibliography


«Norme per funzionamento delle colonie estive diurne nell’anno IX», a cura di Partito Nazionale Fascista, Alessandria, 1931.


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