

INCLUSIVE CITIES AND REGIONS *TERRITOIRES INCLUSIFS*

14° Biennale of European Towns and Town Planners, Naples

Edited by
Marichela Sepe

#Special Workshop



INU Edizioni

Special Workshops

GREEN OASIS FOR THE 15 MINUTES CITY MODEL

Coordinator: Fabiola Fratini

- 720** Pathways towards nature-based climate shelters in school environments
Isabel Ruiz-Mallén, Mamen Artero Borrueal, Filka Sekulova
- 722** Enhancing Inclusive Urban Spaces: An innovative co-creation methodology for and with autistic children
Raquel Colacios, Blanca Calvo
- 724** A Glimpse Into The World Of Urban Forests
Tullia Valeria Di Giacomo
- 726** Greening the 15-minute city: the Eco-Pedagogical Microforest challenge
Fabiola Fratini
- 728** The “Biophilia Hypothesis” as a Nature-based Solution
Costanza Majone
- 730** Rotterdam: the green agenda. Making the city greener and more climate adaptive
Miranda Nauta
- 732** Tiny Forests within the urban fabric
Bartolomeo Schirone, Livia Schirone, Samir Attia, Elisa Manzino, Barbara Beccaria, Fausto Pistoja
- 734** Evaluation of the benefits of contact with nature in children
Giulio Senes, Natalia Fumagalli
- 736** Spatial and social factors enabling a sustainable relationship with nature
Matteo Giusti
- 737** Democracy and the experience of nature
Simone Pollo

Special Workshops

MAKING/UNMAKING URBAN CIRCULAR ECONOMIES WITH ‘OTHERNESS’

Coordinators: Andrea Bortolotti, Dario Minervini, Giulia Caterina Verga

- 740** Closing the loop, opening up the labour market. Training, reskilling, and inclusion in Brussels circular construction enterprises
Jasmin Baumgartner, David Bassens, Niels De Temmerman
- 742** Re-opening the circle. Steps towards an epistemologically diverse circularity
Andrea Bortolotti, Dario Minervini
- 744** Planning and Designing Circularity and Socio-Ecological Transition in Europe and Beyond: Is Technical Neutrality Really a Thing?
Silvio Cristiano, Luca Tricarico
- 746** Hacking spaces and artifacts. Everyday practices of urban commoning in Piazza Garibaldi
Cristina Trey, Ramon Rispoli, Adam Arvidsson
- 748** How to support and develop (more) inclusive circularity-inspired urban projects and designs? A contribution on bottom-up initiatives for a more just circularity: case studies from the Brussels-Capital Region
Giulia Caterina Verga, Ahmed Zaib Khan
- 750** Circularity through Ecofeminism. Embracing Inclusivity in Flanders’ Urban Planning
Wendy Wuyts

Special Workshops

PUBLIC SPACE FOR INCLUSIVE CITIES: THE BIENNIAL OF PUBLIC SPACE

Coordinator: Pietro Garau, Marichela Sepe

- 754** Urban regeneration area of Ex-fiera
Carlo Cupiccia, Francesca Sforza
- 756** Enhancing social inclusion in small towns: projects and networks
Antonio Bocca, Romina D’Ascanio

Special Workshop

Green Oasis for the
15 minutes city model

Coordinator
Fabiola Fratini

Pathways towards nature-based climate shelters in school environments

Isabel Ruiz-Mallén*, Mamen Artero Borruec** , Filka Sekulova***

Nature-based climate shelters in school environments are understood as co-created and nature-based interventions for responding to climate change in schoolyards and school surroundings that promote biodiversity conservation, social equity, learning and wellbeing regards children, other school community members and the neighbourhood actors around schools. In the last years, municipal programs implementing these nature-based solutions for climate change adaptation in school environments are increasing throughout European cities, but how to establish effective governance arrangements to reach these transformative urban changes is still an unresolved question.

In this work, we shed light on collaborative governance strategies leading to transformation capacities of nature-based climate school shelters by discussing the limitations and opportunities of current experiences and management practices regarding the three challenges of the Green Oasis framework: ecological, social (governance) and eco-pedagogical. We rely on the evidence and data gathered through two initiatives.

On the one hand, the European research project COOLSCHOOLS (<https://coolschools.eu>) that assesses the co-benefits of these nature-based interventions for climate adaptation in schoolyards regarding six analytical dimensions: children's cognitive and behavioural well-being, accessibility and equity, socio-cultural perceptions (e.g., safety), biodiversity conservation, inclusive governance, climate and green education, by using the case studies of Paris, Brussels, Rotterdam and Barcelona. Preliminary results show that transforming schoolyards into nature-based climate shelters can support gender inclusion by providing multi-functional play spaces, can reduce children's inequalities

in access to urban green spaces when interventions are placed in disadvantaged neighbourhoods that are equipped with fewer green spaces, promotes students' wellbeing by providing comfortable spaces, can increase urban green connectivity due to the richness of vegetation species and insects hosted by these green schoolyards, and can offer new learning opportunities for students.

However, most of these nature-based climate school shelters often suffer from a lack of pedagogical approaches to support their educational use because they are only envisioned as play spaces. Many teachers in these schools acknowledge having felt insecure when designing and implementing curricular activities in the schoolyard due to lack of training in outdoor education. It is necessary to develop teaching capacities in outdoor learning by offering tools and resources on how to teach different subjects outside and providing them with guidelines on how to organise students and their work outside. It is also crucial to review and adapt the schools' pedagogical project or approach to integrate green schoolyards into the school as a learning space.

On the other hand, the program PATIOS x CLIMA (<https://patiosxclima.elglobusvermell.org>) developed in Spain in which public administration and school communities are united in the challenge of greening education, an agenda that is also promoted by UNESCO through the Greening Education Partnership. PATIOS x CLIMA gathers experiences from all over the country offering tools to the educational communities or administrations on how to implement these transversal projects. The program and its different actions aim to establish a framework of action and reference based on the renaturation of school spaces, both at the legal-administrative level and in practical issues of community, pedagogical and design action. These actions include:

Informative days with conferences, meetings, roundtables, presentations, seminars, workshop, exhibitions, dissemination materials, open spaces. In 2024 we will be celebrating the 8th edition.

Training programs to establish a framework for action in greening school environments that are targeted to different actors from the educational ecosystem (families, teachers, children, local administrations, neighbourhood agents...) through various formats (intensive weekends, 4 sessions seminar, 2 hours session, etc.).

Greening projects development by providing assessment to educational communities to carry out the transformation processes of their schoolyards and/or other spaces, using permaculture as a design tool in schools to deal with climate change. Collaborative design of projects, executive projects and construction management and advice for participatory maintenance and its curricularization.

* Faculty of Psychology and Education Sciences, Universitat Oberta de Catalunya (UOC), Barcelona, Spain. iruiz_mallen@uoc.edu

** Patios x Clima. El globus vermell AC. Barcelona, Spain. mamenab@elglobusvermell.org

*** Internet Interdisciplinary Institute (IN3), Universitat Oberta de Catalunya (UOC), Barcelona, Spain. fsekulova@uoc.edu

A governance program or community action program working with educational ecosystems to activate communities promoting the auto-organisation by using the schoolyard as a relational space to increase city resilience.

School support and counselling by providing financial advice and grant management, legal procedures for the implementation or execution, Adequacy Certificate of play structures, and technical and pedagogical support.

Public administration support and counselling such as the implementation plans greening municipal schools and educational environments, the courtyard as a green infrastructure of the city, advice on the Municipal Education Plan for the Environment, technical conferences and coordination of the table of experts at national level.

Greening schools for climate adaptation in cities is a collective process that reinforces the active participation of citizens and contribute to improving environmental conditions at the urban level. Increasing the presence of nature in the city is key to mitigating the effects of and adapting to climate change, while maintaining the biodiversity of the ecosystem and increasing its resilience. Technical solutions based on nature, permacultural or regenerative design help us to meet the challenges posed by these projects (increasing biodiversity, flora and fauna, diversification of soils, management of rainwater or drinking water, creation of fresh and pleasant places, diversification of uses, high, medium and low intensity activities, or free circulation and adaptation of accesses...)

These ecological and technical issues that guide the physical transformation of schoolyards must be accompanied by social and eco-pedagogical aspects to ensure that the transformation also happens at the social and educational levels as well as to maximize the co-benefits of these nature-based interventions for children and the other members of the educational ecosystem.



Fig. 1.
Transformed schoolyard through greening and a pedagogical approach in Barcelona



Fig. 2.
Children involved in the process of greening their schoolyard in Granollers, Barcelona