

Seeds of Change: School Gardens on the Road to Environmental Justice.

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Abstract This study examines a grassroots intervention at a primary school in Acharnes, Greece, where community stakeholders collaboratively reimagine the schoolyard as a shared green space. Through interviews, group discussions, and children's drawings, the research explores how participatory environmental practices address urban ecological challenges and social sustainability. The study investigates community-driven green space development's potential to enhance environmental consciousness, promote spatial justice, strengthen social networks, and reconnect urban communities with ecological systems. Preliminary findings highlight school gardens as critical urban ecological interventions supporting both environmental regeneration and social cohesion.

Keywords: Community gardens; Sustainability; Collaboration; Green urban spaces; Participatory Urbanism

1. Introduction

The escalating climate crisis demands innovative urban green infrastructure strategies (Tsitsoni et al., 2015; Kontou & Kokmotou, 2020). Urban green spaces serve critical ecological functions, mitigating heat island effects, improving air quality, and enhancing biodiversity (Strakantouna, 2022). Beyond environmental benefits, these spaces represent sites of community empowerment and social transformation, where collective action can address environmental inequities (Fielding, 2009).

This study explores schoolyards as potential community ecological spaces, examining how collaborative gardening practices can simultaneously promote environmental education, social cohesion, and spatial justice. Through mixed-method qualitative research, we investigate community perceptions of school gardens as platforms for intergenerational ecological engagement and collective environmental citizenship.

2. School Gardens as Community Gardens

Modern schoolyards in Greece are predominantly concrete landscapes, biologically sterile and

inhospitable (Zambras, 2019; Charitakis, 2020). Greening these spaces emerges as a critical strategy to improve urban children's living environments, enhance biodiversity, and mitigate microclimate challenges (Van Wijk et al., 2024). A growing movement to 'green' urban schoolyards has emerged (Ozer, 2007). These gardens serve as alternative spaces promoting natural resource conservation, water preservation, changed consumption patterns, and waste management (Babou & Flogaiti, 2015; Garitsis, 2016).

School gardens represent transformative ecological spaces that enable environmental justice, transcending socio-economic inequalities by democratizing access to natural resources and sustainable practices (Ray et al., 2016). These spaces serve as platforms for reimagining urban ecological citizenship, where community participation becomes a catalyst for systemic environmental change. Successful schoolyard transformation requires collective engagement. Parents, teachers, and local community members play crucial roles in creating, maintaining, and protecting these green infrastructures (Burt et al., 2018). By fostering shared responsibility and place-based environmental education, school gardens become sites of social learning and ecological reconnection (Moore et al., 2015).

3. Methods

In the present study, action research was carried out, with participant observation and interviews, which were conducted with a teacher who took the initiative to shape part of the schoolyard and create a school garden, with the School Director and with 20 guardians. In addition, a group discussion was held with the 25 pupils of the class. The pupils were additionally asked to draw, expressing their feelings and what they liked or disliked about the garden-related action. Drawing has been used as a technique to highlight children's thoughts and opinions (Duncan, 2013).

4. Results and Discussion

The school garden project revealed promising community engagement, with parents actively participating in garden maintenance during school hours and holidays. Despite challenges of limited resources and time (Walshe et al., 2024), the initiative fostered intergenerational ecological cooperation (Figure 1). Students demonstrated profound ecological awareness, prioritizing nature and expressing enthusiasm through vibrant artwork. Their perspectives aligned with community garden research by Kingsley et al. (2019), highlighting potential for transformative environmental education. To promote environmental justice, the project prioritizes inclusivity by actively engaging students and families from diverse backgrounds in decision-making processes. Workshops and educational programs would be designed to raise awareness about environmental justice issues, encouraging the local community to consider how their actions in the school garden can contribute to a more equitable and sustainable future.



Figure 1. Parents and grandparents prepare the ground for sowing

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