

Rethinking Sustainability: Towards an Open System Approach

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Abstract : Sustainability is a growing concern in architecture and urban planning due to the environmental impact of the built environment. Ecological challenges persist despite the proliferation of sustainable design strategies, prompting a critical reevaluation of existing approaches. This study examines sustainable design practices, focusing on the origins and processes of production, environmental impact, and socioeconomic dimensions. It also discusses 'cleantech' initiatives, which often prioritize profitability over ecological stewardship. The study advocates for a paradigm shift in urban design towards greater adaptability, complexity, and inclusivity, embracing porosity, incompleteness, and seed planning. This holistic approach emphasizes citizen participation and bottom-up interventions, reimagining urban spaces as evolving ecosystems. The study calls for a reimagining of sustainability that transcends conventional green design concepts, promoting a more resilient and inclusive built environment through an open system approach grounded in adaptability, diversity, and equity principles.

Keywords : sustainability, clean-tech, open system design, sustainable design

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