

## A Study of Spatial Resilience Strategies for Schools Based on Sustainable Development

**Authors :** Xiaohan Gao, Kai Liu

**Abstract :** As essential components of urban areas, primary and secondary schools are extensively distributed throughout various regions of the city. During times of urban disturbances, these schools become direct carriers of complex disruptions. Therefore, fostering resilient schools becomes a pivotal driving force to promote high-quality urban development and a cornerstone of sustainable school growth. This paper adopts the theory of spatial resilience and focuses on primary and secondary schools in Chinese cities as the research subject. The study first explores the potential disturbance risks faced by schools and delves into the origin and concept of spatial resilience in the educational context. Subsequently, the paper conducts a meta-analysis to characterize the spatial resilience of primary and secondary schools and devises a spatial resilience planning mechanism. Drawing insights from exemplary cases both domestically and internationally, the research formulates spatial and planning resilience strategies for primary and secondary schools to cope with perturbations. These strategies encompass creating an overall layout that integrates harmoniously with nature, promoting organic growth in the planning structure, fostering ecological balance in the landscape system, and enabling dynamic adaptation in architectural spaces. By cultivating the capacity for "resistance-adaptation-transformation," these approaches support sustainable development within the school space. The ultimate goal of this project is to establish a cohesive and harmonious layout that advances the sustainable development of primary and secondary schools while contributing to the overall resilience of urban areas.

**Keywords :** complex disruption, primary and secondary schools, spatial resilience, sustainable development

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