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RETHINKING OUTDOOR RESIDENTIAL SPACES TO PROMOTE HEALTH AND WELL-BEING: TOWARDS AN ANTI-VIRUS BUILT ENVIRONMENT THE CASE OF ALI MENDJELI-CONSTANTINE, ALGERIA IN A POST-PANDEMIC CONTEXT

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Abstract

Cities, characterized by high population density and complex human interactions, face unique challenges in their operations during the COVID-19 pandemic. Contemporary research highlights a consensus among scientists on the necessity of creating pandemic-resilient cities by rethinking functional and spatial structures and ensuring cities are equipped for rapid regeneration in the post-pandemic era. This study aims to explore and identify critical issues related to the lived experiences of residents in vulnerable neighborhoods with high population density and the built environment quality during the pandemic. It investigates aspects that may contribute to improving pandemic case rates. This exploratory phenomenological study employed a mixed methods approach, comprising three complementary modes of inspection: a) a user analysis layer using semi-structured interviews and observations to survey households' needs and behaviors; b) a context analysis layer using space syntax and Envi-met software for environmental numerical simulation to examine the space's morphoclimatic and environmental conditions; c) a performance analysis layer to propose "anti-virus" neighborhoods. This study outlines a comprehensive framework for transforming the outdoor spaces of Ali Mendjeli, Constantine's Neighborhood Unit 9, into a resilient "anti-virus" environment. The findings provide valuable guidance for redesigning and adapting open spaces to reduce infection risks and effectively limit virus spread. A set of design recommendations has been provided to serve as a foundation for future researchers to develop strategies aimed at reducing the impact of future pandemics.

Key words: COVID-19, environmental quality, post-pandemic neighborhoods, outdoor open spaces

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