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Sommario/riassunto	This book presents three projects that demonstrate the fundamental problems of architectural design and urban composition – the layout design, evaluation and optimization. Part I describes the functional layout design of a residential building, and an evaluation of the quality of a town square (plaza). The algorithm for the functional layout design is based on backtracking using a constraint satisfaction approach

combined with coarse grid discretization. The algorithm for the town square evaluation is based on geometrical properties derived directly from its plan. Part II introduces a crowd-simulation application for the analysis of escape routes on floor plans, and optimization of a floor plan for smooth crowd flow. The algorithms presented employ agent-based modeling and cellular automata.

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