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Architectural Al

Urban artificial intelligence in architecture and design

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ABSTRACT

This chapter investigates the impact of artificial intelligence on contemporary cities through the lens of architectural and urban design. It explores design computing approaches where artificial intelligence (AI), machine learning (ML) and generative approaches to urban design are employed to manage and create spatial configurations. Architectural AI hinges on the notions of digital demiurge and black box: two intentionally polarized paradigms that underpin the idea of agency in the design process. The chapter explores the extent to which designers (or machines) are in control of the design process and final outcomes. This work provides examples of how the use of generative and intelligent systems is changing the way design is thought and produced. Conclusions suggest that the relationship that designers currently have with computers – and their agency over the production of urban space – is amorphous and non-hierarchical. This relationship is based on a profound collaborative human–machine paradigm and constant feedback loop between designers and AI, to the point that a design project could now be considered a truly collective oeuvre.