

Combining grammars and Space Syntax: Formulating, evaluating, and generating designs

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Teresa Heitor, José Pinto Duarte and Rafaela Marques Pinto
Instituto de Engenharia de Estruturas, Território e Construção do
Instituto Superior Técnico, Portugal

Abstract

This paper is concerned with how two different computational approaches to design - shape grammars and space syntax - can be combined into a single common framework for formulating, evaluating, and generating designs. The main goal is to explore how the formal principles applied in the design process interact with the spatial properties of the designed objects. Results suggest that space syntax is (1) useful in determining the universe of solutions generated by the grammar and (2) in evaluating the evolving designs in terms of spatial properties and, therefore, in guiding the generation of designs.

Keywords

Discursive grammar,
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teresa@civil.ist.utl.pt
jduarte@civil.ist.utl.pt
rmarquespinto@yahoo.com

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