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

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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.