

Shape Grammars for architectural design

The need for reframing

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Abstract. Although many shape grammars and corresponding implementations have been proposed, shape grammars are not widely adopted by architectural designers. In this paper, we therefore look for the barriers of implementing and using shape grammars for architectural design. We do this by outlining several implementation strategies of shape grammars, we briefly point to our own graph-based design grammar system, and we analyse the resulting overview using theories on how designers think and act upon incoming information. Based on this analysis, we develop and suggest how design grammars might best be implemented and used for architectural design relying on the information technologies available at this particular moment of time.

Keywords: architectural design, design space exploration, design thinking, shape grammar.