

Title: Architectural workflows embedding fabrication methods.

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Abstract:

The focus of this paper is to discuss the advantages of integrating the computational thinking in the process of design, taking into account how simulation tools can assist in the fabrication technique and assembly process in one single workflow in contrast with BIM methods.

Conventional ways of using computers in architecture are involved in methods of converting virtual three dimensional model space into a real constructed, but those methods are not taking into account the computational and fabrication processes. The methods of collaboration of the overall design to construction process with traditional Building Information Management have over simplify the manufacture process for industry purposes and the collaboration and file exchange left behind design issues and construction logic.

The role of simulations inside the generative process of design has great advantages; controlling the parametric workflow of attributes and critically the generative geometry, it's possible to allow the analysis of various solutions during on the project development and assisting designers to obtain a sense of fabrication time and material cost, depending on complexity. With CAD/CAM instructions, design information extends beyond representation to drive the whole manufacturing process embedding building assembling logic in an integrated optimized workflow.