

Traditional Drawing, BIM and Erudite Design Process

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Abstract : Nowadays, parametric design, scientific analysis, and digital fabrication are dominant. Many architectural practices are increasingly seeking to incorporate advanced digital software and fabrication in their projects. Proposing an erudite design process that combines digital and practical aspects in a strong frame within the method was resulted from the dissertation research. The digital aspects are the progressive advancements in algorithm design and simulation software. These aspects have assisted the firms to develop more holistic concepts at the early stage and maintain collaboration among disciplines during the design process. The erudite design process enhances the current design processes by encouraging the designer to implement the construction and architecture knowledge within the algorithm to make successful design processes. The erudite design process also involves the ongoing improvements of applying the new method of 3D printing in construction. This is achieved through the 'data-sketches'. The term 'data-sketch' was developed by the author in the dissertation that was recently completed. It accommodates the decisions of the architect on the algorithm. This paper introduces the erudite design process and its components. It will summarize the application of this process in development of the '3D printed construction unit'. This paper contributes to overlaying the academic and practice with advanced technology by presenting a design process that transfers the dominance of tool to the learned architect and encourages innovation in design processes.

Keywords : erudite, data-sketch, algorithm design in architecture, design process

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