Digital Projects: Defining Digital Architecture

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Architecture is presently engaged in an impatient search for solutions to critical questions about the nature and the identity of the discipline, and digital technology is a key agent for prevailing innovations in architecture. Although, this is really nothing new, as new technology has always been a catalyst for new ideas in architecture. A positive digital future in architecture requires a clearer definition of principles and skills necessary to maintain a rigor in emerging digital projects What is digital architecture? Architectural ideas have found new forms of digital representations, as information reconfigures into digital visualizations, and projects evolve further as digital fabrications.

However, using digital technology doesn't necessarily constitute creating digital architecture. Ideas are still scrutinized by the author(s). Thus, a responsibility for a critical dimension still falls upon the author(s). Any new categorizations of architecture must connect equally with the critical as well as the technological skill base of the authors. Just as there is a difference between building and architecture, there is also a distinct difference between digitally generated projects and digital architecture.

Digital principles+rigor. Does the tool path limit the density of the ripple? Did I choose a suitable algorithm for that surface? ...A clear and critical definition of new principles has yet to materialize in the wake of these new toot driven terminologies. I submit that digital architecture projects still come to life through the lens of a familiar architectural process – as a critical problem solving activity that results in projects represented with a rigor and depth of idea and intention, albeit with a highly sophisticated digital tool skill set. Without new principles, many projects remain impenetrable and thus intimidating, or merely "interesting." Without a rigor and critical dimension, the projects will remain only exercises in software.

Digital skills: Digital architecture requires proficiency with a specific foundation set of digital skills such as: 2D composition, vector graphics, image manipulation, 3D modeling: surface modeling, solid modeling, video editing, motion graphics, rendering, animation, parametrics, drafting, communications, layout, printing, presentation, database operations, web interface, CAM-based fabrication, performance analysis: lighting, structures, systems, etc. However, innovative digital projects will not sacrifice the development of this skill set at the expense a critical problem-solving dimension. Thus, we must carefully consider the guidelines for what truly constitutes a digital architecture" project.