



Elegance in Structure: From idea to inception, how does the process influence this Elegance?

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Summary

This paper studies the evolution of the design process and technological advances that impact it.

Keywords: Technology in design; construction practices; history of the design process; BIM; .

Introduction

“Elegance in Structures”. When I first saw that title for this symposium, I thought “IABSE found another way to wrap the same subjects up in another catchy title”. We would attend a conference with basically a lot of the same presentation types we see each year. Scientific papers on how tall a building can be; how long a bridge can span; risk assessment, repair and maintenance of structures; sustainability and all the other things that are neatly wrapped into every symposium. Yes, each symposium is a fantastic assembly of papers...most very technical in nature; all very important in their own right. I am not downplaying the significance of what an IABSE symposium provides. In my mind, these are the most technically superior symposiums. Then I thought about this subject. Elegance in Structure. What exactly does and can that mean? Are we beginning to stray from technical content and change the focus to the beauty of a building structure; a bridge? While I myself would welcome some content like this, even by architects, it is not what this symposium is necessarily about. What then was to become of this symposium's title? When I was asked to be a keynote speaker, the subject suddenly became far more meaningful to me. I wanted to write something very different. I started thinking about what I would write about. Would it be some structure I designed that won awards and is revered by the industry? Would I write about a technological breakthrough that our office had made on one of our projects? Perhaps once again talk about the great post tensioning repairs at what the American Institute of Architects (AIA) called America's greatest architectural achievement”? Would it be finding beauty in ALL structure, no matter the size, importance or cost? Or was there something more that I could begin to explore? In thinking on this topic, I determined that talking about elegant structures is exciting, but not what I was interested in doing. Rather, I would like to talk about HOW we get elegance in structure, not through the architect's vision, or the engineers mind, or the owner's checkbook. Rather it is through the coordinated effort of the entire design/ownership/construction team. I'd like to explore the successes and failures through history and in my career and dissect how they worked...or how they did not work. I'd like to challenge the notion that



“God is in the details” as Mies van der Rohe so clearly stated. Perhaps, God is NOT only in the details. Perhaps in the details lies the ability for the entire team to work together on a single, concise, timely, economic and elegant effort to ensure project delivery for the owner.... correction, for ALL involved, meets the goals set forth at the start of a given project. I’d like to challenge the process as we know it, certainly in the US, as to how projects are delivered. I’d like to ensure elegance in design through a different form of project delivery.