



McCormick

Northwestern Engineering

Department of Civil and Environmental Engineering Distinguished Annual Lecture

Theory Is Practical: The Philosophy of Design

**WILLIAM F. BAKER, PE, SE, FASCE,
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4:00 p.m., Friday, April 29, 2011

Ford Building, ITW Lecture Room

Reception immediately following the lecture

THE FOUNDERS of modern structural engineering created structures that were inspiring in their form and economical in their execution. While this economy was undoubtedly driven by financial pressures, it was also a result of the ideological purity of the design. At the time, complicated structural designs were simply beyond an engineer's ability to calculate. However, within the past few years, the explosion of computational power has enabled engineers to design and create structures that are extremely complex and beyond one's ability to comprehend without the aid of a computer (some are conceptually unfathomable even with a computer). Our modern analytical tools can yield a more efficient structure than one achievable through simpler means, but these same tools can also enable the creation of overly complicated structures that are financially and materially expensive. In this lecture, Bill Baker, Partner in Charge of Structural Engineering at Skidmore, Owings & Merrill, LLP, will propose a design philosophy to bridge the divide between design and analysis.



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