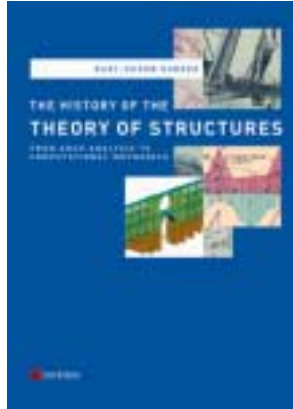


**The History of the  
Theory of Structures  
From Arch Analysis to  
Computational Mechanics**

Karl-Eugen Kurrer  
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What do today's structural engineers know about the origins of structural theory? When and how did structural calculations start to be used in the design process?

This is the first book to present a holistic history of structural theory aimed at

international professional circles. It is an updated and significantly expanded version of the successful German 1st edition, which was published in 2002. Starting with a description of the strength studies carried out by Leonardo and Galilei, the

book examines the development of individual structural techniques and the formation of structural theory as a discipline. Based on classical mechanics, structural analysis and the theory of material strength emerged as fundamental technoscientific disciplines from the theory of geometry developed during the Renaissance. The book is the first to offer an overview of the development from conventional structural theory to structural mechanics and computational mechanics during the last century. Brief summaries of the development of common calculation methods, supported by historic sket-

ches, provide insights into the history of structural mechanics and present-day calculation techniques. The book explains terms such as structural theory, engineering science and theory of material strength and examines the aims and objectives of structural theory and the history of structural calculation techniques, iron and steel construction and reinforced concrete construction. To complement the text there are 175 profiles of significant figures from fields of structural engineering and structural mechanics and an extensive bibliography. **Z**