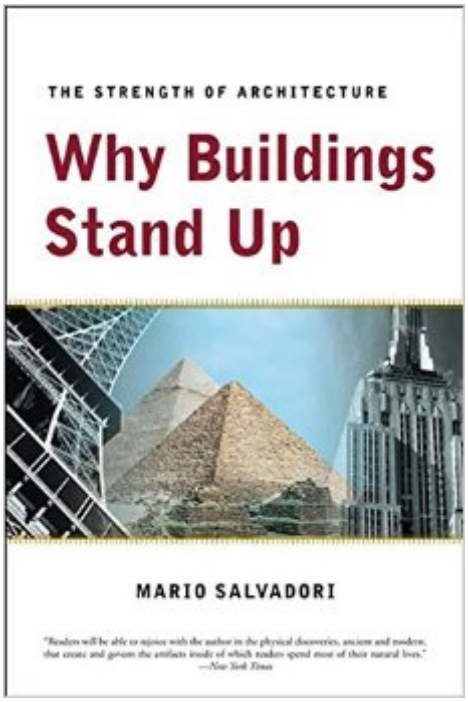
Why Buildings Stand Up: The Strength Of Architecture



Synopsis

"Readers will rejoice... in the physical discoveries, ancient and modern, that create and govern the artifacts inside of which readers spend most of their natural lives."â •New York Times Between a nomad's tent and the Sears Tower lies a revolution in technology, materials, and structures. Here is a clear and enthusiastic introduction to buildings methods from ancient times to the present day, including recent advances in science and technology that have had important effects on the planning and construction of buildings: improved materials (steel, concrete, plastics), progress in antiseismic designs, and the revolutionary changes in both architectural and structural design made possible by the computer. B/W line drawings

Book Information

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Customer Reviews

Salvadori's "Why Buildings Stand Up" is perhaps best introduced by the author's own words in the preface, succinctly and appealingly written: "This book was written for those who love beautiful buildings and wonder how they stand up." A somewhat lofty goal, the author nevertheless does a wonderful job of introducing the basics of building mechanics and then to describe how those mechanics - both static and dynamic - are at play in a wide variety of structures ancient and modern. The book is a thoroughly enjoyable read that leaves one much more greatly informed than one might expect, despite the obvious implication and stated goal of the title.The book truly represents a door opening into the world of structural issues in architecture. After a brief introduction on the historical background of the field of architecture, Salvadori introduces the pyramids of Egypt

as one of the earliest examples of empirical approaches to structural erection ("empirical" meaning that much of this effort was trial-and-error, in spite of some basic understandings of how gravity affects, and creates, structural "loads" in any construction). Having allowed us to focus our thoughts on these early construction programs, we then are introduced in turn to essential engineering architecture concepts such as loads, beams, columns, and building materials. These discussions, which are covered in extensive, but nevertheless clear, text, serve as the foundation pieces for everything else examined throughout the remainder of the work.The text next moves into numerous specific building types, and examines the specific engineering issues surrounding each. By presenting the material in this manner, we are able to learn all about the sometimes complex statics and dynamics issues in a contextual manner, i.e.

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