



Cable-stayed bridges - 40 years of experience worldwide.

By Holger Svensson

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The German firm of Leonhardt Andrä & Partners is closely associated with the design and development of cable-stayed bridges worldwide, and this book contains a wealth of useful information on the subject from one of the firm's best-known proponents of these structures – Holger Svensson.

This excellent book covers most aspects of cable-stayed bridge art and technology including planning, design, detailing and construction, drawing on the considerable 40-year experience and expertise of the author and some of his colleagues.

It is a well-written and thorough treatment of the subject, with many helpful illustrations, and should find a place in the library of anyone interested in these compelling and increasingly popular bridges.

Key aspects covered include the historical development of cable-stayed bridges, from the early beginnings to the present day; important structural details and relevant theory with particular emphasis on stay cable technology and behaviour. Preliminary design of cable-stayed bridges is covered, with some useful tools for initial sizing and design checking and the

book also includes information about the erection of cable-stayed bridges, illustrated by plenty of detailed examples.

The text includes short pen-portraits of some engineers known to the author who have made a conspicuous contribution in this field, often alongside photographs of projects attributed to them. Of course no bridge project is the result of just one person's effort and Svensson acknowledges that there is therefore some inevitable simplification here. Hopefully those who are not mentioned will forgive the omission and nevertheless appreciate the author's perspectives and considerable experience.

There is an encyclopaedic amount of information here. The book contains plenty of useful data and an enormous number of photographs, and it manages to combine lots of practical detail with a clear explanation of the most important theoretical aspects.

At the back of the book is a huge reference section. Naturally the majority of these references are from Germany, which is to be expected, but many also stem from the years the author spent in the USA working on bridges including the Pasco-Kennewick Intercity Bridge in Washington, the East Huntington Bridge in West Virginia, the Sunshine Skyway Bridge in Florida and the Baytown Bridge in Texas.

Written in a charming personal style, the English text is very readable and manages to contain a lot of numerical data and useful engineering information without becoming turgid or interrupting the reader's flow. In parts it is a historical essay and in others a text book of structural analysis and behaviour. The result is a volume which is well suited to both the interested amateur and the involved professional.

The book includes two DVDs of the lecture series presented by Svensson at the University of Dresden Faculty of Structural Engineering in 2011-2012. The lectures are in English, accompanying the themes and content of the book, and provide a very useful CPD resource.

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