

**THE EVOLUTION OF CABLE-STAYED BRIDGES
IN GERMANY AND FRANCE**

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A MASTER'S THESIS PRESENTED TO THE FACULTY
OF PRINCETON UNIVERSITY IN CANDIDACY
FOR THE DEGREE OF MASTER OF SCIENCE IN ENGINEERING

RECOMMENDED FOR ACCEPTANCE
BY THE DEPARTMENT OF
CIVIL ENGINEERING AND OPERATIONS RESEARCH

June 1998

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Abstract

This thesis describes the historical development of cable-stayed bridge in terms of technological and theoretical aspects in the countries of France and Germany since the beginning of the 19th century. Beginning with the calculations of C. L. Navier, the study progresses through various French hybrid designs to the first modern cable-stayed bridge built in France in 1952. It continues further in Germany where the development is based on Franz Dischinger's writings and where the evolution of the modern cable-stayed bridge mainly continues. Major advances are made in Germany in the 1950s to 1970s before French engineers return to designing in the type which culminates in the construction of the Pont de Normandie, the currently longest-spanning bridge of this type in the world.

Furthermore, this thesis explores the aesthetic and stylistic differences in the designs originating from both countries. National as well as designer's personal preferences are explored and studied to attempt to define a national style in the design of cable-stayed bridges.