



Books

Additional Resources in MSEL Maillart and Reinforced Concrete

Superstructures: the world's greatest modern structures/Neal Parkyn
MSEL Call Number Eisenhower Stacks NA680.P277 2004 Quarto

Robert Maillart: builder, designer, and artist / David P. Billington.
MSEL Call Number Eisenhower Stacks TG140.M3 B57 1997

Robert Maillart and the art of reinforced concrete / David P. Billington.
MSEL Call Number Eisenhower Reserves TG340.B561 1990

Robert Maillart's bridges / David P. Billington.
MSEL Call Number Eisenhower Reserves TA140.M3 B55 1979

Robert Maillart; bridges and constructions. Bill, Max, 1908.
MSEL Call Number Libraries Service Center TA140.M3 B5 1969

Tips on finding these and more books on structures in the MSEL.

<http://www.library.jhu.edu/researchhelp/engr/structures/books.html>

Journal Articles

Title: Bridges of Robert Maillart

In: Concrete International: Design and Construction

Volume: v 15 Issue: n 6 Jun 1993 p 30-36

Abstract: As no other engineer in his time, Robert Maillart (1872-1940) not only explored and usefully applied the possibilities of reinforced concrete, but also accepted the material's sculptural challenge to build with it artfully and uniquely. With few exceptions, no contemporary engineer building with reinforced concrete can challenge this claim. Maillart succeeded in transforming new technical knowledge and talent into forms of equivalent expression.

MSEL Call Number Eisenhower Stacks TA680.C772

Database: Compendex

Title: Robert Maillart's design approach for flat slabs

In: Journal of Structural Engineering

Volume: v 123 Issue: n 8 Aug. 1997 p 1102-1110

Abstract: Robert Maillart's dimensioning procedure for orthogonally reinforced flat slabs is reviewed and compared with methods of elastic plate theory and limit analysis. It is shown that compared to an elastic analysis, Maillart considerably underestimated the flexural moments acting in flat slabs. However, based on comparisons with limit analysis procedures, Maillart's designs are characterized by reasonable safety margins. It is demonstrated that the efficiency of the reinforcement according to Maillart's design approach agrees well with that of current design methods.

MSEL Call Number Eisenhower Stacks TA1.A49ST

Database: Compendex

Title: Robert Maillart's curved concrete arch bridges

In: Journal of Structural Engineering

Volume: v 123 Issue: n 10 Issue Oct 1997 p 1280-1286

Abstract: Starting from a description of his four curved concrete arch bridge projects it is shown how Maillart adapted his deck-stiffened arch concept to allow for a horizontally curved deck. Based on this review possible extensions of

Maillart's concepts are discussed. Abstract type:(Author abstract)

MSEL Call Number Eisenhower Stacks TA1.A49 ST

Database: Compendex

Title: WILHELM RITTER: TEACHER OF MAILLART AND AMMANN

In: ASCE Journal of the Structural Division

Volume: 106 Issue: n 5 May 1980 p 1103-1116

Abstract: This paper seeks to make the contemporary structural engineering profession aware of a 19th century tradition of education which has been almost lost. That educational tradition possessed ideas which do not go out of date and which can stimulate a healthy review of present research and teaching in structural engineering.

MSEL Call Number Libraries Service Center TA1.A49 ST

Database: Compendex

Title: DECK-STIFFENED ARCH BRIDGES OF ROBERT MAILLART.

In: ASCE Journal of the Structural Division

Volume: v 99 Issue: n ST7 Jul 1973 p 1527-1539

Abstract: The paper describes R. Maillart's controversial analysis for the elegant thin concrete arches he designed from 1924 to 1934. Starting from a clear understanding of structural behavior, Maillart designed these arches so that almost all the live-loading bending would be taken by the stiff deck, thus leaving the thin arch to carry little more than axial compression. The validity of his simplified analysis is confirmed by comparing his results to those from a modern computer analysis.

MSEL Call Number Libraries Service Center TA1.A49 ST

Database: Compendex

Title: Robert Maillart and the art of reinforced concrete

In: Applied Mechanics Reviews

Volume: v 45 Issue: n 1 Jan 1992 p B8

MSEL Call Number Eisenhower Stacks TA1.A65

Database: Compendex

Title: Thin-section concrete arches as built in Switzerland

In Engineering News-Record

Volume: v 112 Issue: n 2 Issue Jan 11 1934 p 44-45

Abstract: Features of thin arch concrete highway bridges recently built. Similar in contents to paper by MAILLART indexed in Engineering Index 1931 p 164 from Bauingenieur Mar 6 1931.

MSEL Call Number Gilman Stacks TA1.E63

Database: Compendex

Title: BUILDING BRIDGES: PERSPECTIVES ON RECENT ENGINEERING.

In: Annals of the New York Academy of Sciences

Volume: v 424 May 23 1984 p. 309-324

Abstract: John A. Roebling (1806-1869) was a structural engineer and at the same time an engineering artist; he stands within a 200-year tradition of structural art. Begun with the introduction of industrialized iron during the last quarter of the eighteenth century, this new tradition includes such engineers as Thomas Telford (1757-1834), Gustave Eiffel (1832-1923), Robert Maillart (1872-1940), Othmar Ammann (1879-1965), Eugene Freyssinet (1879-1962), and many contemporary designers such as Ulrich Finsterwalder (b. 1897) and Christian Menn (b. 1927). The goal of this brief review is to define this art form and to show something of its development after the completion of the Brooklyn Bridge.

MSEL Call Number Eisenhower Stacks Q11.N55 no. 424

Database: Compendex

Title: BRIDGE DESIGN AND REGIONAL ESTHETICS

In: ASCE Journal of the Structural Division

Volume: v 107Issue:n 3 Mar 1981p 473-486

Abstract: Leading bridge designers have developed individual styles within limited locales, and those styles demonstrate similarities in personal esthetic ideas. An examination of the works of six major bridge designers characterizes these ideas and illustrates the striking fact that in each case these designers have done nearly all their major work in one well-defined region of a remarkably small area. The six bridge designers are: Thomas Telford (1757-1834), John Roebling (1806-1869), Gustave Eiffel (1832-1923), Robert Maillart (1872-1940), Othmar Amman (1879-1965), and Christian Menn (born in 1927).

MSEL Call Number Eisenhower Stacks TA1.A49 ST

Database: Compendex

Title: Robert Maillart, builder, designer, and artist David Billington

In: Journal of the Society of Architectural Historians 1999

June, v.58, n.2, p.231-233

MSEL Call Number Eisenhower Stacks NA1.S67 also in [JSTOR](#)

Database: Avery Index to Architecture

Title: Road bridge over the Arve, Switzerland: Robert Maillart,

In: Architectural design 1950 Jan., v.20, n.1, p. 24-25.

MSEL Call Number Libraries Service Center NA1.A679

Database: Avery Index to Architecture

Title: Robert Maillart, 1872-1940 / P. Morton Shand.

In: Architectural review 1940 Sept., v. 88, p. 81-86.

MSEL Call Number Gilman Stacks NA1.A75

Database: Avery Index to Architecture

Title: The Lorraine Bridge over the River Aare at Bern,

In: Architectural review 1931 Sept., v. 80, p. 79.

MSEL Call Number Gilman Stacks NA1.A75

Database: Avery Index to Architecture

Tips for finding these articles and more journal articles like these.

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