



Beyond the Cube: The Architecture of Space Frames and Polyhedra

From Wiley

Download now

Read Online ➔

Beyond the Cube: The Architecture of Space Frames and Polyhedra From Wiley

This book offers an in-depth look at space frame architecture, including space frame projects completed by such notable architects as I. M. Pei, Buckminster Fuller, Philip Johnson and Louis Kahn. Both theory and practice are included to offer a comprehensive overview of the history, current use, and future outlook for creating space frame structures. The 15 distinguished contributors to this book have extensive background in the architecture of space frames and offer an international perspective on the subject. The text is illustrated with hundreds of line drawings, black-and-white photos, and an eight-page color insert.

 [Download Beyond the Cube: The Architecture of Space Frames ...pdf](#)

 [Read Online Beyond the Cube: The Architecture of Space Frame ...pdf](#)

Beyond the Cube: The Architecture of Space Frames and Polyhedra

From Wiley

Beyond the Cube: The Architecture of Space Frames and Polyhedra From Wiley

This book offers an in-depth look at space frame architecture, including space frame projects completed by such notable architects as I. M. Pei, Buckminster Fuller, Philip Johnson and Louis Kahn. Both theory and practice are included to offer a comprehensive overview of the history, current use, and future outlook for creating space frame structures. The 15 distinguished contributors to this book have extensive background in the architecture of space frames and offer an international perspective on the subject. The text is illustrated with hundreds of line drawings, black-and-white photos, and an eight-page color insert.

Beyond the Cube: The Architecture of Space Frames and Polyhedra From Wiley Bibliography

- Sales Rank: #1241604 in Books
- Published on: 1997-08-12
- Original language: English
- Number of items: 1
- Dimensions: 11.30" h x 1.40" w x 8.90" l, 3.55 pounds
- Binding: Hardcover
- 536 pages

 [Download Beyond the Cube: The Architecture of Space Frames ...pdf](#)

 [Read Online Beyond the Cube: The Architecture of Space Frame ...pdf](#)

Editorial Review

From the Publisher

This book offers an in-depth look at space frame architecture, including space frame projects completed by such notable architects as I. M. Pei, Buckminster Fuller, Philip Johnson and Louis Kahn. Both theory and practice are included to offer a comprehensive overview of the history, current use, and future outlook for creating space frame structures. The 15 distinguished contributors to this book have extensive background in the architecture of space frames and offer an international perspective on the subject. The text is illustrated with hundreds of line drawings, black-and-white photos, and an eight-page color insert.

From the Inside Flap

Though human fascination with polyhedra can be traced back to the time of Pythagoras, only in the twentieth century have architects begun to fully appreciate and exploit their advantages as elements of structure and design. In *Beyond the Cube*, J. François Gabriel and a team of leading space frame experts from around the world examine the practical as well as theoretical aspects of space frames. They discuss some of the most memorable examples and practitioners of twentieth-century space frame design: Louis Kahn and the Yale University Art Gallery, Buckminster Fuller's geodesic domes, Philip Johnson's radically different approach to space frames in the Crystal Cathedral, and I. M. Pei's Javits Convention and Exhibition Center, among others. In an extended discussion on the theory of polyhedra, *Beyond the Cube* explores the ways in which coupling cube to tetrahedron produces an array of other polyhedra that enable the expansion of design sources beyond the cube. The book examines the geometric laws that govern many of these shapes—prisms, antiprisms, domes, and folded plate structures, as well as space frames—and surveys the symbolic meanings ascribed to many polyhedra. Structural aspects of polyhedra are examined from two points of view, that of the structural engineer and that of the designer using CAD for the purpose of visualization and formal transformations. The book concludes with a look toward the future of polyhedra in architecture, including tensegrity structures, in which structural elements under compression are not in direct contact with each other; space labyrinths, made of a continuous surface dividing space into two parts; and quasicrystals, three-dimensional manifestations of higher-dimensional polyhedra. The final chapter examines the architectural spaces found within space frames, including "hexmods," "star beams," and the many other spaces that have yet to be named. For architects, structural engineers, and students, *Beyond the Cube* covers the what, why, and how of space frame architecture in a comprehensive and accessible manner not available in any other book. Hundreds of line drawings, black-and-white photos, and an eight-page color insert are both instructive and inspiring. This book is more than an introduction to space frames, it is an invitation to explore, discover, and use polyhedra to create imaginative, expressive, and practical designs for buildings.

From the Back Cover

Though human fascination with polyhedra can be traced back to the time of Pythagoras, only in the twentieth century have architects begun to fully appreciate and exploit their advantages as elements of structure and design. In *Beyond the Cube*, J. François Gabriel and a team of leading space frame experts from around the world examine the practical as well as theoretical aspects of space frames. They discuss some of the most memorable examples and practitioners of twentieth-century space frame design: Louis Kahn and the Yale University Art Gallery, Buckminster Fuller's geodesic domes, Philip Johnson's radically different approach to space frames in the Crystal Cathedral, and I. M. Pei's Javits Convention and Exhibition Center, among others.

In an extended discussion on the theory of polyhedra, *Beyond the Cube* explores the ways in which coupling

cube to tetrahedron produces an array of other polyhedra that enable the expansion of design sources beyond the cube. The book examines the geometric laws that govern many of these shapes--prisms, antiprisms, domes, and folded plate structures, as well as space frames--and surveys the symbolic meanings ascribed to many polyhedra. Structural aspects of polyhedra are examined from two points of view, that of the structural engineer and that of the designer using CAD for the purpose of visualization and formal transformations.

The book concludes with a look toward the future of polyhedra in architecture, including tensegrity structures, in which structural elements under compression are not in direct contact with each other; space labyrinths, made of a continuous surface dividing space into two parts; and quasicrystals, three-dimensional manifestations of higher-dimensional polyhedra. The final chapter examines the architectural spaces found within space frames, including "hexmods," "star beams," and the many other spaces that have yet to be named.

For architects, structural engineers, and students, *Beyond the Cube* covers the what, why, and how of space frame architecture in a comprehensive and accessible manner not available in any other book. Hundreds of line drawings, black-and-white photos, and an eight-page color insert are both instructive and inspiring. This book is more than an introduction to space frames, it is an invitation to explore, discover, and use polyhedra to create imaginative, expressive, and practical designs for buildings.

"We use the cube as if it were the only acceptable model for our living spaces and, in doing so, we ignore countless other forms that might lead to more efficient, more beautiful, more economical, and certainly less worn-out environments." --from the Preface

Users Review

From reader reviews:

Madeline Pastrana:

Have you spare time to get a day? What do you do when you have far more or little spare time? That's why, you can choose the suitable activity intended for spend your time. Any person spent their particular spare time to take a walk, shopping, or went to the actual Mall. How about open or perhaps read a book called *Beyond the Cube: The Architecture of Space Frames and Polyhedra*? Maybe it is being best activity for you. You understand beside you can spend your time together with your favorite's book, you can more intelligent than before. Do you agree with it has the opinion or you have additional opinion?

Gena Colgan:

The guide untitled *Beyond the Cube: The Architecture of Space Frames and Polyhedra* is the guide that recommended to you to learn. You can see the quality of the guide content that will be shown to you actually. The language that publisher use to explained their ideas are easily to understand. The article author was did a lot of exploration when write the book, therefore the information that they share for your requirements is absolutely accurate. You also might get the e-book of *Beyond the Cube: The Architecture of Space Frames and Polyhedra* from the publisher to make you more enjoy free time.

Jack Scala:

Are you kind of active person, only have 10 as well as 15 minute in your moment to upgrading your mind talent or thinking skill actually analytical thinking? Then you have problem with the book as compared to can satisfy your short period of time to read it because this time you only find publication that need more time to be read. Beyond the Cube: The Architecture of Space Frames and Polyhedra can be your answer since it can be read by anyone who have those short time problems.

William Levitt:

Don't be worry should you be afraid that this book will probably filled the space in your house, you could have it in e-book method, more simple and reachable. This Beyond the Cube: The Architecture of Space Frames and Polyhedra can give you a lot of close friends because by you looking at this one book you have matter that they don't and make you actually more like an interesting person. This specific book can be one of a step for you to get success. This publication offer you information that perhaps your friend doesn't know, by knowing more than other make you to be great folks. So , why hesitate? Let's have Beyond the Cube: The Architecture of Space Frames and Polyhedra.

Download and Read Online Beyond the Cube: The Architecture of Space Frames and Polyhedra From Wiley #9C1D3U7R0FP

Read Beyond the Cube: The Architecture of Space Frames and Polyhedra From Wiley for online ebook

Beyond the Cube: The Architecture of Space Frames and Polyhedra From Wiley Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Beyond the Cube: The Architecture of Space Frames and Polyhedra From Wiley books to read online.

Online Beyond the Cube: The Architecture of Space Frames and Polyhedra From Wiley ebook PDF download

Beyond the Cube: The Architecture of Space Frames and Polyhedra From Wiley Doc

Beyond the Cube: The Architecture of Space Frames and Polyhedra From Wiley Mobipocket

Beyond the Cube: The Architecture of Space Frames and Polyhedra From Wiley EPub