

## FERROCEMENT AND LAMINATED CEMENTITIOUS COMPOSITES

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Hardcover; 372 pages; 160 figures and illustrations; 43  
pages containing 120 photographs; design aids;  
bibliographic references; 7.25x9.5 in.

ISBN: 0-9674939-0-0; LCCN: 99-96382; Copyright  
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US\$ 75.00



**Note:** This book and the 3<sup>rd</sup> Edition of the Prestressed Concrete book sell for only \$ 175 for the set.

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## **REVIEWS:**

"I have read almost everything written about ferrocement in the English language and can truthfully say: this book is the most comprehensive and authoritative treatment of ferrocement in existence."

**Martin E. Iorns**, *Industrial Engineer, Member Editorial Board of the Journal of Ferrocement.*

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"Ferrocement and Laminated Cementitious Composites is a comprehensive source of information. The author has used his considerable expertise in giving a modern treatment to ferrocement. His emphasis on understanding the relationship between behavior, analysis and design is unique....The book offers perspectives and insights unparalleled in the existing literature on thin reinforced concrete products, and is an invaluable addition to the library of any professional involved in structural concrete."

**Surendra P. Shah**, *Water P. Murphy Professor of Civil Engineering, Northwestern University, and Director NSF Center for Advanced Cement Based Materials.*

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"Indispensable book for engineers, architects, researchers, students and contractors interested in ferrocement and thin reinforced concrete products. The author has provided a much needed single source textbook that consolidates a broad coverage of information, whether on state-of-the-art, design, construction, cost, applications or future potential of ferrocement and hybrid composites."

**Gordon B. Batson**, *Emeritus Professor of Civil Engineering, Clarkson University, former Chairman ACI Committee on Ferrocement.*

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"A unique and comprehensive treatise of laminated cement composites covering materials, fabrication techniques, analysis and design of structural components and systems, and including the

latest developments on high performance composites."

**P.N. Balaguru**, *Professor of Civil Engineering, Rutgers University, Former Chairman of ACI Committee 549 on Ferrocement.*

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"It must certainly be the most comprehensive work in its field. Even sculptors, who may not understand the mathematics, can derive sculptural applications from the many excellent illustrations and verbal explanations and can learn the basics about how and where to place the steel."

**Lynn Olson**, *Sculptor, Clausen Lane, Valparaiso, Indiana.*

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"This detailed and comprehensive book enables an appreciation to be made of ferrocement from theoretical and practical considerations. The many good examples of ferrocement are brought together indicating the undoubted range and breadth of the material and its potential uses which good design and implementation can bring about. It is an indispensable ferrocement companion."

**Patrick J. Jennings**, *Director of Engineering, NCL Stewart Scott Ltd., London, U.K.*

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"This book is indeed the finest and most comprehensive book on the subject that I know of. Professor Naaman has pulled together his 25+ years of experience and research in the ferrocement field and come up with a textbook of ferrocement. This book will most likely become the standard textbook for the teaching field when it comes to ferrocement.

**Paul Sarnstrom**, *Host, www.ferrocement.net, Montrose, Colorado.*

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"I have been collecting books on ferrocement for five years. I recently read 'Ferrocement and Laminated Cementitious Composites'. I'm certain it will lead to the design of many new products and structures. In my opinion, it is definitely the 'ferrocement bible'."

**David B. Smith**, *Spartanburg, S.C.*

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"This book is the first to bring together the wealth of information currently available on ferrocement and presents it in a digestible format. Written in an extremely readable style, it takes the reader through the historical and early technical background to a modern method with abundant worked examples. More practical information on design and construction is then presented with further detail on the specific aspects of cost and housing. A final section on advanced materials and construction offers a sneak preview into a possible future.

**Paul Nedwell**, *University of Manchester Institute of Science and Technology, Manchester, U.K.*

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Engineered Cementitious Composite (ECC), also called Strain Hardening Cement-based Composites (SHCC) or more popularly as bendable concrete, is an easily molded mortar-based composite reinforced with specially selected short random fibers, usually polymer fibers. Unlike regular concrete, ECC has a strain capacity in the range of 3–7%, compared to 0.01% for ordinary portland cement (OPC) paste, mortar or concrete. ECC therefore acts more like a ductile metal material rather than a brittle glass Ferrocement & Laminated Cementitious Composites [Antoine E. Naaman] on Amazon.com. \*FREE\* shipping on qualifying offers. This book is shipped directly from the publisher. All Departments Alexa Skills Amazon Devices Amazon Warehouse Appliances Apps & Games Arts, Crafts & Sewing Automotive Parts & Accessories Baby Beauty & Personal Care Books CDs & Vinyl Cell Phones & Accessories Clothing, Shoes & Jewelry Women Men Girls Boys Baby Collectibles & Fine Art Computers Courses Credit and Payment Cards Digital Music Electronics Garden & Outdoor Gift Cards Grocery & Gourmet Food Handmade Health, Household & Baby Care Home & Business Services Home &. Special focus is given to the ferrocement and laminated cementitious composites. Different aspects such as materials, design, and construction are discussed together with application of finite element analysis for structures made from cementitious composites.

1. INTRODUCTION. Composite materials are engineering materials made from two or more constituent materials that remain separate and distinct on a macroscopic level while forming a single component. Composites represent a major development of the twentieth century in material science and engineering. These unique man-made materials are qui