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# REVIEWS OF TECHNICAL PUBLICATIONS

## Guide to the Construction of Reinforced Concrete in the Arabian Peninsula

This guide provides those working with reinforced concrete in the Arabian Peninsula with information and guidance on the production of high-quality, durable concrete able to withstand the region's extremely harsh environment. Much of the guidance is also applicable to concrete construction in other hot-wet and hot-dry environments around the world. The principles underlying the successful use of concrete construction in the Arabian Peninsula are explained. The extreme environment and the geological and geomorphological conditions are then discussed. The materials available and execution of concrete works are covered in detail, along with guidance on mix design. Appendices provide data on climate, topography, and formwork pressures at elevated temperatures.

The Concrete Society, Century House, Telford Avenue, Crowthorne, Berkshire RG45 6YS, UK, 232 pp.

## Guide to Evaluation and Repair of Concrete Structures in the Arabian Peninsula

This guide has been prepared for a Joint Working Party of The Concrete Society and the Bahrain Society of Engineers. It covers evaluation and identification of causes of deterioration of concrete structures in the Arabian Peninsula and other extreme environments. The problems encountered in the region, and deterioration processes, are outlined in the opening chapters. Three chapters then deal with inspection, tests and evaluation of present and future behavior of a structure, followed by appropriateness and application of repair techniques. The two final chapters discuss selection of repair options, and contract documents for repair works.

The Concrete Society, Century House, Telford Avenue, Crowthorne, Berkshire RG45 6YS, UK, 96 pp.

## No Significant Dropoff in Garage Construction Seen for 2002-2003

The U.S. economy will produce slightly more garage construction starts in 2002 than it saw in 1998, according to a report presented by Dale Denda, Parking Market Research Company at the Parking Industry Exhibition last month. This article offers commentary on the state of the demand for parking facilities and its effect on the construction industry. Factors influencing the current level of construction starts come from two possible sources. First, there is residual demand from 1997-1999, when the construction could not deliver to meet the demand. The second is a possible tag to the gross domestic product.

*Parking Today*, V. 7, No. 5, May 2002, pp. 50-52.

## The Art of the Skyscraper: The Genius of Fazlur Khan

Mir M. Ali

This publication presents a multifaceted portrait of the structural engineer who changed not only how we build tall buildings, but also how we view them. Fazlur Rahman Khan has been called "the Einstein of structural engineering" and the "philosophical engineer," but his influence was perhaps best captured by *Newsweek* when it called him "the man at the top." Khan's innovations in structural design made possible some of the world's most imposing skyscrapers, including the 100-story John Hancock Center and the 110-story Sears Tower. The book explores Khan's life and work, focusing on a period from the 1950s, when he was a Fulbright scholar at the University of Illinois, to the early 1980s, when his engineering principles began to change urban skylines everywhere.

Rizzoli International Publications, Inc., 300 Park Avenue South, New York, NY 10010, 2001, 240 pp.

## Creep of Concrete and Behavior of Structures – Part 1: Problems

Adam Neville

An explanation of what creep is and the ramifications of the phenomenon are presented, with the effects of creep on many types of structures discussed. Creep is a nonelastic deformation of concrete under sustained stress. It occurs in addition to stress-induced elastic deformation and also stress-independent strains known as shrinkage and thermal movement. The article discusses (1) creep in supports of beams, including discussion of a turbo-alternator, continuous bridge, and suspension bridge; (2) creep in buildings, including problems with cladding, vertical service attachments, and architectural attachments; and (3) differential creep in tall buildings, including causes, effects of construction speed, and structural consequences.

*Concrete International*, V. 24, No. 5, May 2002, pp. 59-66.

## Innovative Shear Design

Hrista Stamenkovic

This book presents a new, rational, and economical design procedure that offers increased protection against shear for all types of structures. The first part of the book describes the internal forces imposed on any flexurally bent member, and goes on to describe how these can interact with external loading forces to cause failure. The author then details the new design approach, and explains how its implementation can prevent cracking and failure for a given load. The book provides numerous practical examples describing optimum design techniques for all types of structures, and serves as a reference for structural designers, architects, academics, and researchers.

Spon Press, 29 West 35th Street, New York, NY 10001, 2002, 235 pp., \$70.00.