
This is a book on concrete, all aspects included. That is history, development, research and technology, culminating in forecasts and advices for the future. Dr. Idorn has been deeply involved in all phases of concrete science and technology throughout the world. His experiences have concentrated on very personal matters making his book a “concretography” with touches based on a lifelong dedicated effort in researching and improving the qualities of concrete.

In reading the book we learn about the Roman concrete which in many instances has weathered 2,000 years and about weaknesses in modern concretes. The author’s early experience on the Danish North Sea coast reveals that almost one-hundred years ago the concrete used in coastal protection works was actually of high quality, a result of the experience by engineers who were keen observers and excellent practitioners. No doubt the author was intrigued by his early experiences and targeted his work in science and technology with a sincere desire of integrating research and practical accomplishment, not an easy task, which carried with it victories as well as disappointments. The book reveals so many sides of the face of concretes that it can be read with pleasure by almost all engineers or other practitioners who have been or are involved in the production of concrete, on a global basis.

The book has four parts: history and research, alkali-silica reaction, international consultancies, and concrete in its present transition stage. The most detailed part is the discussion on alkali-silica reaction, one of the author’s main accomplishments. He discusses in detail the latest forty years of alkali-silica research in terms of research achievements as well as organization.

Part 1 will, in particular, be enjoyed by keen researchers who welcome a review of approaches to the benefit of improvements of quality. Part 2, for the practical engineers, concentrates on the production of concrete, good or bad, and as such serves a missionary job. Part 3 is for those who actually suffer most from mishaps, not least due to alkali-silica reactions, weakening concrete elements. “After more than half a century, the original deleterious silicious rock types are now recognized as potentially reactive in coarse and fine aggregates”.

With respect to Part 4, a relatively few will probably disagree or dislike some of the statements made in the book when the author points to shortcomings in recent developments and research in concrete.

“Nevertheless, progress needs to be made where the demands are, not where they have been; and 50 years ago the obstacles also appeared insurmountable—lacking the present day knowledge base, instrumentation, equipment and abundant capital resources. I am therefore confident that, irresistibly, the circle will close around the world, with updated concrete research and practice being developed into a global, cost-effective entity; the indispensable foundation for a concrete world constitution.” (Last paragraph of Preface).

These statements, however, may also be true for other fields of engineering and for fields outside the physical sciences. In harmony with Dr. Idorn’s suggestions and faith we all have an obligation, as pointed out very clearly in this dedicated “concretography,” to serve a good cause to the benefit of mankind. His bold suggestions will be hailed, discussed and twisted—as they deserves to be. Not only say it—but do it.

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Nature and humans act together to increase the relative rise of sea level on many of the world’s coastal margins. This rise induces coastal erosion, salt water intrusion, loss of wetlands and mangroves, soil and coastal aquifer salinization, increased crevasse flooding of delta channels, and a consequent need to displace coastal settlements. Based on discussions in the present volume, the best that can be said is that, for many sectors, the prognosis is not good.

This multi-authored book, dedicated to J. M. Broadus, former Director of the Marine Policy Center, Woods Hole Oceanographic Institution, focuses on diverse effects of rising relative sea level and subsidence on low-lying coasts. An outgrowth of a SCOPE-sponsored workshop held in Bangkok in 1988, it presents case histories, ongoing problems, and some possible solutions for specific areas. Means of measuring the effects of rising relative sea level include tide-gauge data, calculation of lateral displacement over time of mangrove forests and reduction of wetlands, monitoring changes of sediment input in rivers below dams, and mapping saltwater intrusion in coastal aquifers. Discussed are the roles of population increase and displacement of coastal settlements, influence of sediment removal from coastal rivers by mining, and analyses of sediment entrapment by increased channelization and river dredging. Strategies for human responses to mitigate effects of