

COASTAL SEDIMENTS



'99

VOLUME 1

Edited by
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 **ASCE**

FOREWORD

COASTAL SEDIMENTS '99 was organized as a technical specialty conference devoted to the physical aspects of sediment processes in the coastal and inlet environment. Following in the tradition of previous conferences in the Coastal Sediments series that were held in 1977, 1987, and 1991, COASTAL SEDIMENTS '99 was designed to promote a broad exchange of information and views among specialists in the fields of coastal engineering, geology, oceanography, and related disciplines. The theme of COASTAL SEDIMENTS '99 was *Scales of Coastal Sediment Motion and Geomorphic Change*, which established the trend of thinking and approach of the conference, as well as determined the composition of the papers that were presented. Participants were given an overview of the theme by the Keynote Address "Coastal Change and Human Impacts Scales of Processes and Dimensions of Problems" delivered by Professor Paul D. Komar of Oregon State University. In review of the papers contained in these Proceedings, the reader might note that geologists are tending to work more at shorter temporal and spatial scales, including turbulence scales, whereas engineers are tending to take approaches at longer scales, including regional scale. The Coastal Sediments conference series has as an objective promoting exchange of information between coastal engineers and coastal scientists, and the Proceedings house high-quality contributions from both groups, reflecting their changes in approach and tools.

The conference technical schedule was organized in four general areas as (A) Fundamentals, (B) Processes and Systems, (C) Responses and Macro-Scale, and (D) Applications. Approximately equal numbers of papers were presented in each area in parallel sessions, and these two Proceedings volumes are the permanent record of the conference. The contents are a valuable source of information on coastal sediment and morphology processes ranging from basic research to engineering applications. These Proceedings volumes provide the most recent results and ideas in a wide range of approaches and viewpoints not found elsewhere in the literature in both quality and breadth.

Three-hundred abstracts were submitted to the Conference Steering Committee. On average, each abstract received five reviews, and 180 were accepted for development into full papers and presentation over three days of technical sessions. The papers appearing in these Proceedings were written by specialists from more than 30 countries, demonstrating that COASTAL SEDIMENTS '99 was a popular international conference. Each paper included in these Proceedings received positive peer reviews. Each paper is eligible for discussion in the *Journal of Waterway, Port, Coastal and Ocean Engineering* and is eligible for ASCE awards.

The Conference Steering Committee gratefully acknowledges the assistance of many individuals, some known, some unknown, and some anonymous, in the two years of preparations by an all-volunteer committee. Assistance during milestone events leading to the Conference were provided by ASCE members Mary Cialone, Mark Gravens, Julie Rosati, Bill Seabergh, Jarrell Smith, Greg Williams, and by our colleagues from the geological and other sciences – Ed Hands, Anne-Lise Lindquist, and Joan Pope. Numerous individuals assisted the Steering Committee in review of abstracts and final papers. To the following individuals by name and to those anonymous, we express our appreciation for your careful reviews: Peter Barnes, Mike Bruno, Bob Dean, Kerry Anne Donohue, Dan Hanes, Hans Hanson, Curt Larson, Magnus Larson, Mohabir Persaud, Diane Rahoy, John Ramsey, Chris Rasmussen, Jay Tanski, Aram Terchunian, and Keith Watson.

We also thank the session moderators for agreeing to lend their time and experience to run the conference smoothly and productively. We are indebted to the tour leaders and their organizations for arranging and conducting memorable and stimulating technical trips. The Long Island Historic Urban Beaches Tour was led by Lynn Bocamazo and Diane Rahoy, both of the U.S. Army Engineer District, New York. The South Shore of Long Island Tour was led by Jim Allen of the U.S. Geological Survey, Fred Anders of the New York Department of State, and Nick Kraus of the U.S. Army Engineer Waterways Experiment Station. Assistance on the South Shore tour and in providing photographs for the Conference web site was kindly provided by Aram Terchunian of First Coastal Corporation.

Finally, we thank Darlene Gregory of East Meets West Productions for assisting in producing this remarkable Conference that is so precious to all of us, and to Susan Fisher and Charlotte McNaughton for assisting with arrangements in publishing these Proceedings.

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