

Table of Contents

Acknowledgments	v
Introduction / <i>Richard A. Davis, Jr.</i>	1
Chapter 1	
River Deltas / <i>L. D. Wright</i>	5
Introduction	5
Occurrence and Distribution of Deltas	6
General Characteristics of Deltas and Deltaic Environments	9
Delta-Forming Processes	16
Deltaic Sediments and Sedimentary Structures	47
Variability of Deltaic Geometries and Depositional Sequences	51
Summary	63
References	64
Chapter 2	
Coastal Bays / <i>Robert B. Biggs</i>	69
Introduction	69
Kinds of Estuaries	70
Processes of Suspended Sediment Transport	70
Processes Affecting the Accumulation of Suspended Sediments	77
Source, Character, and Fate of Suspended Matter in Estuaries	81
Bottom Sediments in Estuaries	91

Selected Examples	93
Sedimentary Structures	94
References	96
Chapter 3	
Coastal Salt Marshes / <i>Robert W. Frey and Paul B. Basan</i>	101
Introduction	101
The State of the Art	102
Definition and Occurrences of Coastal Salt Marshes	103
Environmental Conditions and Marsh Zonation	106
Characteristic Plants	116
Characteristic Sediments	119
Substrate Characteristics and Biogeochemistry	127
Processes Affecting Sedimentation in Salt Marshes	132
Sedimentary Structures	151
Epilog	159
References	159
Chapter 4	
Coastal Dunes / <i>Victor Goldsmith</i>	171
Introduction	171
Coastal Sand Dunes	176
Physical Processes of Eolian Sedimentation	209
Artificially Inseminated Coastal Sand Dunes	227
References	230
Chapter 5	
Beach and Nearshore Zone / <i>Richard A. Davis, Jr.</i>	237
Introduction	237
Distribution	238
Geometry	238
Beach Materials	247
Processes	256
Sedimentary Structures	272
Process–Response Systems in the Beach and Nearshore	
Environment	277
References	280
Chapter 6	
Mesotidal Inlets and Estuaries / <i>Jon C. Boothroyd</i>	287
Introduction	287
Bedforms	296
Genesis of Estuarine Bedforms	314
Tidal Deltas	328

Stratigraphic Sequences and Depositional Models	350
References	356
Chapter 7	
Coastal Stratigraphic Sequences / <i>John C. Kraft</i>	361
Introduction	361
Processes of Change	365
Sedimentary Sequences	367
The Transgressive Shoreline	369
Galveston and Regressive Shorelines	373
Sequences	374
Delta–Chenier Plains	376
Coastal Sequences in Time and Space	378
The Uses of Vertical Sequence Analysis	380
References	381
Chapter 8	
Modeling Coastal Environments / <i>William T. Fox</i>	385
Introduction	385
Geometric Model	386
Statistical Models	389
Markov Model	393
Probabilistic Model	397
Deterministic Model	400
Fourier Model	404
Summary	410
References	411
Index	415