

Contents

Foreword vii

Acknowledgments viii

Preface ix

Part I: Framing geodesign 1

Chapter 1: A necessary collaboration 3

The design professions and the geographic sciences 5

A symbiotic collaboration 8

Geodesign is not new 8

Geodesign is different 12

An early study example: Boston, Massachusetts, USA 13

Chapter 2: The context for geodesign 19

Geography matters 19

Scale matters 19

Size matters 21

Part II: A framework for geodesign 23

Chapter 3: Questions and iterations 25

The six questions of the framework 26

The three iterations through the framework 26

The framework in practice 33

Chapter 4: The first iteration through the framework: Scoping the geodesign study 35

Questions 1 through 6 and their related models 36

Scenarios of assumptions, objectives, and requirements 40

Is geodesign the best way forward? 41

(Part II continued)

Chapter 5: The second iteration through the framework: Designing the study methodology 45

- Decision models 46
- Impact models 48
- Change models 49
- Evaluation models 60
- Process models 63
- Representation models 73
- Choices must be made 76

Chapter 6: The third iteration through the framework: Carrying out the study 83

- Questions 1 through 6 and implementing the models 84
- Reaching the first decision stage: *No, Maybe, or Yes* 87
- Feedback strategies 87
- Changing scale and/or size 87
- Yes, and to review by the decision makers 88
- A caution: adaptability 89
- The choices matter 91

Part III: Case studies in geodesign 93

Chapter 7: Geodesign with certainty 95

- The anticipatory change model (Camp Pendleton, California, USA) 95
- The participatory change model (The Osa region, Costa Rica) 104
- The sequential change model (The Bermuda dump) 112

Chapter 8: Geodesign under uncertainty 119

- The constraining change model (Cagliari, Sardinia, Italy) 119
- The combinatorial change model (The Roncaglione Park and the Industrial Zone, Padova, Italy) 128

Chapter 9: Geodesign when knowing the rules 139

- The rule-based change model (La Paz, Baja California Sur, Mexico) 140
- The optimized change model (The Telluride region, Colorado, USA) 150
- The agent-based change model (Idyllwild, California, USA) 161
- Mixed: sequential and agent-based change models (West London, United Kingdom, 1875–2005) 171

Part IV: A future for geodesign 179**Chapter 10: Implications for research in geodesign 181**

- Tools, techniques, and methods 181
- Research needs for geodesign 182
- A research question: which level of spatial-analytic complexity? 184
- A research question: which ways of designing? 184
- A research question: which ways of visualization and communication? 185
- A support system for geodesign 186

Chapter 11: Implications for education and practice in geodesign 189

- Educating conductors vs. training soloists 189
- The roles of history and precedent 190
- The study of failures 192
- Toward curricula for geodesign 193
- A master's level curriculum in geodesign 194

Chapter 12: A future for geodesign 197

- A future for geodesign education 197
- A future for geodesign practice 198
- Some last words 201

Bibliography 203**About the author 209**