

Contents

Preface	v
Table of Contents	xxi
List of Figures	xxiii
Part 1 Foundations: The Chapters	1
Chapter 1 Unlimited Scope of System Science	5
Chapter 2 The Human Being (Creative and Fallible)	13
Chapter 3 Language (Overpromising, Underperforming)	21
Chapter 4 Second-Order Thought (The Stuff Reason is Made of)	28
Chapter 5 The Thought Explorers (Working Backward Through Time)	38
Chapter 6 Quality Control In Modeling Structure	46
Chapter 7 The Situation Room	56
Part 2 Discovery: The Chapters	60
Chapter 8 Describing Problematic Situations	63
Chapter 9 Metrics of Complexity	68
Chapter 10 Diagnosing	76
Part 3 Resolution: The Chapters	80
Chapter 11 System Design	83
Chapter 12 Choosing From The Alternatives	86
Chapter 13 Implementing the Design	89
Chapter 14 The Corporate Observatory: Sustaining Management Communication and Continuity In an Age of Complexity	91
Part 4 The Practitioners (“Systemists”): The Chapters	100
Chapter 15 The Private Sector: The Practitioners (“Systemists”)	103
Chapter 16 The Government Sector: The Practitioners (“Systemists”)	125
Chapter 17 The Social Arena: The Practitioners (“Systemists”)	147
Chapter 18 Education Sector: The Practitioners (“Systemists”)	169

Part 5 Systems Science: The Chapters	183
Chapter 19 Systems Science	184
Chapter 20 Reflections And Speculations	196
Appendix 1 Gallery	205
Appendix 2 The “Warfield Special Collection” at the George Mason University Fenwick Library	236
Appendix 3 Discovering Systems Science	262
Appendix 4 Linguistic Adjustments: Precursors to Understanding Complexity	321
Appendix 5 The Two Neutral Processes of Systems Science	365
Appendix 6 Statements, Themes, Findings, Structure	378
Appendix 7 Literacy in Structural Graphics: The Higher Education Imperative	390
<i>Index</i>	393