## Contents

|   | List of Figures Preface   | x<br>xiii |
|---|---|-----------|
| L | Reasons for Preserving the Past                                 | 1         |
|   | The Importance of the Past 1                                    |           |
|   | Remains (Objects and Sites) 2<br>Narrative 2                    |           |
|   | Heritage and the Past 3   |           |
|   | Valuing the Past 5  |           |
|   | Devaluing the Past 9  |           |
|   | Authenticity 10   |           |
|   | Preservation Mechanisms: Legislation, Preservation in Situ, and |           |
|   | Collection 11   |           |
|   | Legislation 11  |           |
|   | Preservation in Situ 13   |           |
|   | Collection 15   |           |
|   | Biases in Collections and Displays 17                           |           |
|   | 1A Case Study: The De Walden Antique Helmet Collection 20       |           |
|   | De Walden Collection No. 7.33 20                                |           |
|   | De Walden Collection No. 7.34 21                                |           |
|   | De Walden Collection No. 7.19 21                                |           |
|   | De Walden Collection No. 7.20 21                                |           |
|   | De Walden Collection No. 7.23 22                                |           |
|   | 1B Case Study: The Laetoli Footprints 23                        |           |
| 2 | 2 The History of Conservation                                   | 28        |
|   | Conservation's Prehistory 28                                    |           |
|   | The 'Three-Legged Stool' 29                                     |           |
|   | Conservation Emerges: 1888–1950 32                              |           |
|   | Conservation Evolves: 1950-Present 35                           |           |
|   | The Emergence of Formal Conservation Training 36                |           |
|   |   |           |

|     | ~        |
|-----|----------|
| 371 | Contents |
| V1  | Comenis  |

2A Case Study: The Portland Vase 37

|   | 2B Case Study: Sutton Hoo Helmet 40                        |    |
|---|--|----|
| 3 | Conservation Aims and Ethics                               | 45 |
|   | Conservation: A Definition 45                              |    |
|   | Charters, Ethical Codes, and Guidelines for Practice 46    |    |
|   | Shared Themes and Evolving Concepts 48                     |    |
|   | Controversial and Enduring Concepts 49                     |    |
|   | True Nature 49   |    |
|   | Reversibility and Retreatability 50                        |    |
|   | Minimum Intervention 51                                    |    |
|   | Implementing Ethics 52                                     |    |
|   | Revelation, Investigation, Preservation (RIP) 53           |    |
|   | The Conservation Process 55                                |    |
|   | Factors Influencing Conservation 57                        |    |
|   | The Initial Desired Outcome 57                             |    |
|   | Durham Cathedral Doors 58                                  |    |
|   | The Envelope(s) of Possibility 58                          |    |
|   | Context 59   |    |
|   | 3A Case Study: The Statue of Liberty 60                    |    |
|   | 3B Case Study: The Mary Rose 65                            |    |
|   |  |    |
| 4 | Objects: Their Investigation and Recording                 | 69 |
|   | Objects and Society 69                                     |    |
|   | The Structure and Decay of Objects 72                      |    |
|   | Investigation 74   |    |
|   | Visual Examination 75                                      |    |
|   | Non-Visual Physical Properties 76                          |    |
|   | Analysis 77  |    |
|   | Sampling 81  |    |
|   | Reporting Analytical Results 82                            |    |
|   | Purpose and Nature of Documentation 82                     |    |
|   | The Conservation Record 84                                 |    |
|   | 4A Case Study: Bradwell Box 88                             |    |
|   | 4B Case Study: Archimedes Palimpsest 90                    |    |
|   |  |    |
| 5 | Cleaning   | 95 |
|   | Cleaning 95  |    |
|   | Soiling 95   |    |
|   | Removing Soiling 96  |    |
|   | Original Surface: A Concern When Cleaning 98  Overpaint 99 |    |
|   | Varnishes, Lacquers, and Painting Cleaning 100             |    |
|   | Cleaning Processes 102                                     |    |
|   | Troubles I ve  |    |

|   | 5A Case Study: The Sistine Chapel 108  |     |
|---|--|-----|
|   | Restoration 114 The Development of Restoration 116 Restoration in Practice 119 Challenges Presented in the Purpose, Acceptability, and Extent of Restoration 123 Alternative Approaches 125 Replication 126 6A Case Study: Hans Holbein's painting The Ambassadors 128 6B Case Study: The Loch Glashan Satchel 132 | 114 |
| 7 | Stabilisation  | 135 |
|   | The Nature of Survival and Stability 135   |     |
|   | Survival 135   |     |
|   | Stability 135  |     |
|   | Change 137   |     |
|   | The Nature of Stabilisation 137  Biological 138  Chemical 138  Physical 140  |     |
|   | Treatments 140   |     |
|   | Stability of Conservation Materials 141 Assessing Stabilisation Effectiveness 143 When Stabilisation Is Not Possible 144 7A Case Study: Lindow Man 145 7B Case Study: The H.L. Hunley 149  |     |
| 8 | Preventive Conservation and Storage  | 154 |
|   | Preventive Conservation 154 Ideal Museum Standards 155 Risk Management 156 Disaster Planning and Response 159 Storage 160 Condition Surveys 162 Sustainable Storage 163 8A Case Study: Neil Armstrong's Spacesuit 164  |     |
|   | 8B Case Study: Brodsworth Hall 169   |     |

Risk/Benefit Analysis 103

The Goldilocks Principle 105

Cleaning: Concluding Thoughts 106

| 9  | Preserving Intangible Heritage: Working and Socially Active Objects  Working/Dynamic Objects 175 | 174 |
|----|--|-----|
|    | Working Objects in Museum Contexts 178   |     |
|    | Balancing the Roles of Working Objects 180   |     |
|    | Socially Active Objects 184  |     |
|    | People-Centred Conservation and Consultation 190   |     |
|    | 9A Case Study: The Forth Railway Bridge 191  |     |
|    | 9B Case Study: The Organised Upright Grand Piano 194   |     |
|    | 9C Case Study: Conservation of a Tlingit Basket 198  |     |
| 10 | Perception, Judgement, and Decision-Making   | 202 |
|    | Perception 202   |     |
|    | Learnt behaviours 205  |     |
|    | Judgement 205  |     |
|    | Learning 206   |     |
|    | Limitations and Biases in Perception and Judgement 208   |     |
|    | Improving Judgement in Conservation 209  |     |
|    | Optimal Decision-Making 211  |     |
|    | Cost-Benefit Analysis 213  |     |
|    | Adding Complexity 215  |     |
|    | Risk Assessment for Museums 216  |     |
|    | The Bigger Picture 217   |     |
|    | Consultation 218   |     |
|    | Developing Decision-Making 220   |     |
|    | 10A Case Study: The Bush Barrow Gold 221   |     |
| 11 | Responsibilities, Skills, and Sustainable Practices in the 21st Century                          | 226 |
|    | The Responsible and Effective Conservator 226  |     |
|    | Health and Safety 226  |     |
|    | Mental Health 228  |     |
|    | Professional Competence 229  |     |
|    | Conservation Outreach 231  |     |
|    | Media 232  |     |
|    | Conservation Exhibits 233  |     |
|    | Social Media 234   |     |
|    | Volunteer Engagement 235   |     |
|    | Impact 236   |     |
|    | Challenges for the 21st Century 236  |     |
|    | Climate Change 237   |     |
|    | Reducing Environmental Impact 237  |     |
|    | Diversifying the Face of Conservation 238  |     |
|    | Digital World 239  |     |
|    | Expanding Heritage and Diminishing Resources 240   |     |
|    | Neutrality 241   |     |

Conclusion: Judgement, Skills, and Decision-Making in the 21st Century 241 11A Case Study: The Contents of a Danish Vets Dispensary 242

11B Case Study: Tullio Lombardo's Adam 245

Bibliography
252
Index