

# Contents

|                 |      |
|-----------------|------|
| Foreword        | xi   |
| Preface 1999    | xv   |
| Preface         | xvii |
| Acknowledgments | xix  |

|     |   |     |
|-----|---|-----|
| I   | SYMMETRY AND DESIGN                               | I   |
|     | 1. In Search of Beauty                            | 3   |
|     | 2. Symmetry and Simplicity                        | 8   |
|     | 3. The Far Side of the Mirror                     | 22  |
| II  | EINSTEIN'S LEGACY                                 | 49  |
|     | 4. Marriage of Time and Space                     | 51  |
|     | 5. A Happy Thought                                | 76  |
|     | 6. Symmetry Dictates Design                       | 95  |
| III | INTO THE LIMELIGHT                                | 101 |
|     | 7. Where the Action Is Not                        | 103 |
|     | 8. The Lady and the Tyger                         | 113 |
|     | 9. Learning to Read the Great Book                | 122 |
|     | 10. Symmetry Triumphs                             | 133 |
| IV  | TO KNOW HIS THOUGHTS                              | 151 |
|     | 11. The Eightfold Path in the Forest of the Night | 153 |
|     | 12. The Revenge of Art                            | 185 |

|                                 |     |
|---------------------------------|-----|
| 13. The Ultimate Design Problem | 210 |
| 14. Unity of Forces             | 228 |
| 15. The Rise of Hubris          | 255 |
| 16. The Mind of the Creator     | 275 |

Afterword 285

Appendix to Chapter 9 297

Appendix to the Afterword 301

Notes 321

Index 345