

CONTENTS

Foreword *vii*

Prologue: And We Really Can See Them *xi*

About This Book *xvii*

PART I Journey Through Space and Time

- 1 Humankind, the Earth, and the Moon 3
- 2 The Solar System and Our Evolving Model
of the Universe 19

PART II The Mysteries of the Universe

- 3 Einstein's Happiest Thought 47
- 4 The Milky Way and Its Stars 73
- 5 Dead Stars and Black Holes 81
- 6 Galaxies, Quasars, and the Big Bang 107

PART III The Journey to the Image

- 7 The Galactic Center 131
- 8 The Idea Behind the Image 153
- 9 Building a Global Telescope 167

10 Striking Out on Expedition 193

11 An Image Resolves 215

PART IV Beyond the Limits

12 Beyond the Power of Our Imagination 239

13 Beyond Einstein? 249

14 Omniscience and Limitations 267

Acknowledgments 295

List of EHT Authors 297

Glossary 301

Image Credits 313

Notes 315

Index 335