

CONTENTS

<i>Prologue: Beginnings and Endings</i>	ix
---	----

CHAPTER ONE

Talking Sky, Working Stone and Living Field: <i>From Prehistory to the Agricultural Revolution</i>	1
---	---

CHAPTER TWO

The City, the Cycle and the Epicycle: <i>From the Urban Revolution to a Rational Universe</i>	27
--	----

CHAPTER THREE

The Clock, the Bell Tower and the Spheres of God: <i>From the Medieval Monastery to the Renaissance Cosmos</i>	56
---	----

CHAPTER FOUR

Cosmic Machines, Illuminated Night and the Factory Clock: <i>From Newton's Universe to Thermodynamics and the Industrial Revolution</i>	87
--	----

CHAPTER FIVE

The Telegraph, the Electric Clock and the Block Universe: <i>The Imperatives of Simultaneity from Time Zones to Einstein's Cosmos</i>	117
--	-----

CHAPTER SIX

The Expanding Universe, Radio Hours and Washing Machine Time: <i>Speed, Cosmology and Culture Between the World Wars</i>	144
---	-----

CHAPTER SEVEN

- The Big Bang, Telstar and a New Armageddon: 175
The Nuclear Big Bang's Triumph in a Televised Space Age

CHAPTER EIGHT

- Inflation, Cell Phones and the Outlook Universe: 209
Information Revolutions and the Big Bang Gets in Trouble

CHAPTER NINE

- Wheels Within Wheels: Cyclic Universes and the Challenge 251
of Quantum Gravity: *Eternal Time Through Repeating Time*

CHAPTER TEN

- Ever-Changing Eternities: The Promise and Perils of a 275
Multiverse: *Eternal Inflation, Arrows of Time and the
Anthropic Principle*

CHAPTER ELEVEN

- Giving Up the Ghost: The End of Beginnings and the End 298
of Time: *Cosmology's Radical Alternatives in Three Acts*

CHAPTER TWELVE

- In the Fields of Leaning Grass: 316
Ending the Beginning in Human and Cosmic Time

Acknowledgments 339

Notes 343

Bibliography 373

Illustration Credits 389

Index 391