

Contents

1 Introduction	1
References	8
Part I Watchers of the Sun	
2 The Americas	11
Cahokia	11
Mesoamerica	16
Maya Cosmology	28
1054 for the Maya: Some Speculations	39
Mississippian Culture	40
References	50
3 Supernova—Cataclysm in the Sky	53
Introduction	53
SN 1054 Elsewhere in the World	60
The Philosophy of Time—On Time, the Nature of Time, and Its Changing	63
Part II The Celestial Empire	
4 The Chinese World	75
The Celestial Sphere	75
Astronomy and the Fall of the “New” Dynasty	84
Early Chinese Cosmology	89
Chinese Astronomical Systems and Tools	95
References	108
5 Comet—A Sea of Dust and Ice	109
Historical Comets and Their Effects on Culture	116
The Philosophy of Unification in Early China	118
References	125

Part III Calculation of Astronomical Wonders

6 India	129
Eating the Sun.	129
Early Indian Astronomy—Vedic	132
Siddhantic Astronomy	143
Indian Cosmology	144
Islamic Thought and Astronomy, and Its Influence on India	149
Return to Jai Singh	156
References	168
7 Eclipse—Shadows and Light.	171
Eclipses in History.	179
References	181

Part IV The Perfection of the Spheres

8 Europe and the West	185
Pre Greco-Roman Astronomy in Europe.	185
Stonehenge	185
Goseck Circle	189
Newgrange	191
Astronomy in Ancient Greece	194
Ptolemy and the Spheres.	203
The Problems of Ptolemy	205
Visions of Change—Brahe and Kepler	207
References	211
9 Contemporary Astronomical Thought.	213
Ultraviolet Astronomy—Mira’s Tail	220
Cosmic Background Radiation.	222
The Philosophy of Two-World Naturalism and the Future of Astronomy	223
References	225
Index	227