

Contents

Preface	IX
List of Tables	X
List of Illustrations	XI
List of Abbreviations	XII

1 General Introduction	1
2 Multiple Explanations	8
2.1 Introduction	8
2.2 Preliminary Observations	9
2.2.1 <i>Causes and Explanations</i>	9
2.2.2 <i>Variations in the Use of Multiple Explanations</i>	10
2.3 Truth, Probability and Personal Preferences	12
2.3.1 <i>Introduction</i>	12
2.3.2 <i>Are All Alternative Explanations True?</i>	13
2.3.3 <i>Contestation or Disagreement with Appearances</i>	32
2.3.4 <i>Incompatibility with Explanations of Other Phenomena</i>	32
2.3.5 <i>Non-Contestation and Analogy</i>	34
2.3.6 <i>Degrees of Probability and Personal Preferences</i>	37
2.3.7 <i>Lucretius' Supposed Preference for the Theories of Mathematical Astronomy</i>	42
2.4 Multiple Explanations and Doxography	58
2.5 The Sources of the Method of Multiple Explanations	62
2.5.1 <i>Introduction</i>	62
2.5.2 <i>Democritus</i>	63
2.5.3 <i>Aristotle</i>	65
2.5.4 <i>Theophrastus</i>	67
2.5.5 <i>The Syriac Meteorology</i>	70
2.5.6 <i>Conclusions about the Origins of the Method</i>	73
2.6 Conclusions	74
3 Range and Order of Subjects in Ancient Meteorology	76
3.1 Introduction	76
3.2 Range, Delimitation and Subdivisions of Meteorology	78
3.2.1 <i>Introduction</i>	78
3.2.2 <i>The Texts</i>	79
3.2.3 <i>The Table</i>	98

3.2.4	<i>Some Observations</i>	99
3.2.5	<i>Some Conclusions</i>	106
3.3	Terrestrial Phenomena Other Than Earthquakes	109
3.3.1	<i>Lucretius</i>	109
3.3.2	<i>Parallels in Meteorology and Paradoxography</i>	113
3.3.3	<i>Conclusion</i>	125
3.4	Order of Subjects	127
3.4.1	<i>Introduction</i>	127
3.4.2	<i>The Table</i>	130
3.4.3	<i>Some Observations</i>	130
3.4.4	<i>Proposed Original Order of Subjects</i>	137
3.4.5	<i>Deviations from the Proposed Original Order</i>	137
3.4.6	<i>The Internal Structure of Chapters and Sections</i>	140
3.5	Relations between the Four Texts	143
3.5.1	<i>Epicurus' Letter to Pythocles and His "Other Meteorology"</i>	144
3.5.2	<i>Lucretius DRN VI and Epicurus' "Other Meteorology"</i>	144
3.5.3	<i>Authorship and Identity of the Syriac Meteorology</i>	145
3.5.4	<i>Lucretius, Epicurus and the Syriac Meteorology</i>	153
3.5.5	<i>Aëtius' Placita and Theophrastus' Physical Opinions</i>	155
3.5.6	<i>Summary</i>	156
3.6	Conclusions	158
3.7	Epilogue: Epicurean Cosmology and Astronomy	160
4	The Shape of the Earth	162
4.1	Introduction	162
4.2	Historical and Conceptual Context	165
4.2.1	<i>The Shape of the Earth in Antiquity: A Historical Overview</i>	165
4.2.2	<i>Ancient Proofs of the Earth's Sphericity</i>	169
4.2.3	<i>Epicurus' Ancient Critics</i>	175
4.2.4	<i>The Direction of Natural Motion and the Shape of the Earth</i>	177
4.3	Discussion of Relevant Passages	180
4.3.1	<i>The Rejection of Centrifocal Natural Motion (DRN 11052ff.)</i>	181
4.3.2	<i>Downward Motion (DRN II 62–250)</i>	210
4.3.3	<i>The Apparent Proximity of the Sun (DRN IV 404–413)</i>	220
4.3.4	<i>Climatic Zones? (DRN V 204–205)</i>	221
4.3.5	<i>Lucretius' Cosmogony (DRN V 449–508)</i>	223

4.3.6	<i>Stability of the Earth</i> (DRN V 534–563)	235
4.3.7	<i>The Size of the Sun</i> (DRN V 564–591)	236
4.3.8	<i>Centrifocal Terminology</i> (DRN V 621–636)	239
4.3.9	<i>Sunrise and Sunset</i> (DRN V 650–679)	241
4.3.10	<i>The Earth's Conical Shadow</i> (DRN V 762–770)	242
4.3.11	<i>The 'Limp' of the Cosmic Axis</i> (DRN VI 1107)	245
4.3.12	<i>Philodemus and the Gnomon</i> (<i>Phil.</i> De sign. 47.3–8)	254
4.4	Conclusions	255
5	General Conclusions	264
Appendix 1: Multiple Explanations in Epicurus' <i>Letter to Pythocles</i>		269
Appendix 2: Multiple Explanations in Lucretius' DRN V and VI		272
Appendix 3: General Structure of the <i>Syriac Meteorology</i>		274
Bibliography		276
Index Locorum		286
General Index		298