

Cosmology and the Scientific Self in the Nineteenth Century

Howard Carlton

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A paper based on elements of Part III, specifically the narrative of Nichol's response to the claimed refutation of the nebular hypothesis, has previously been published as: Howard Carlton, 'Condensing from a Fluid Haze: John Pringle Nichol, the Nebular Hypothesis and Nineteenth-Century Cosmogony' in Nicholas Campion and Chris Impey (eds.), *Imagining Other Worlds: Explorations in Astronomy and Culture* (Ceredigion: Sophia Centre Press, 2018), 87–94.

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ABOUT THE BOOK

This book will argue that while the historiography of the development of scientific ideas in the nineteenth century has for some time acknowledged the important influences of social, cultural and material factors, and the recent turn to the history of experience has further reinforced the influences of internal and external psychotropic stimuli on subjectivities, the significant impact of traumatic events, life-threatening illnesses or bereavement on the development of scientific thought may not have been fully recognised. The ideas of selected subjects with respect to the nature of the universe and the interlinked epistemologies of science, religion, metaphysics and political ideology were sometimes materially altered by affective life-events as evidenced by the positions which they subsequently adopted and promulgated in relation to these overlapping sources of knowledge and praxis.

This work will focus in particular on the influence of such events on the developing views of several nineteenth-century scientists and science writers who opined on the structure, size and composition of the universe. The approach taken will be to explore three topics of great interest to astronomers and physicists during this time period: the question of the possible existence of life on other planets, the deployment of the nebular hypothesis as a theory of cosmogony and the religiously charged debates about the ages of the earth and sun.

Evidence has arisen as a result of a close reading of the comments and narratives of the subjects and their biographers for the sometimes-subtle and complex influences which influenced their thinking on these questions. In the course of studying such primary sources, it became clear that

they frequently referred to significant life crises, sometimes accompanied by the consumption of psychoactive substances, which preceded important changes in their theological, metaphysical and scientific worldviews. A few notable cases of this ilk have already been signposted by historians, but the case histories discussed in this book will provide a significant set of new examples of such affects and effects. We will uncover the stories of several such perspective-altering crises and will further interrogate the available documents in order to study the relationships between mind and body thus revealed. Applying this suggested mode of interpretation to the broader field of nineteenth-century scientific developments in general, we shall achieve a greater understanding of the underlying forces which drove the intellectual history of that era and which are still relevant to today's knowledge-making processes.

CONTENTS

Part I	Introduction	1
1	Crisis and Cosmology: The Subtle Interactions of Mind, Body and Belief	3
	<i>Experience, Emotions and Weltmodelle</i>	6
	<i>Victorian Experiences of Illness and Death</i>	10
	<i>Psychotropic Drugs in the Nineteenth Century</i>	15
	<i>Victorian Religion</i>	19
	<i>Subjects and Sources</i>	24
	<i>Structure of This Book</i>	28
	<i>Astronomic Emotions</i>	30
Part II	The Extraterrestrial Life Debate	33
2	Planets and Pluralism: How Many Revelations Are Required to Redeem the Entire Universe?	35
	<i>The Origins of Pluralism</i>	36
	<i>Thomas Paine and the Age of Reason</i>	39
	<i>Supporters and Opponents of Paine's Thesis</i>	44
	<i>William Paley's Natural Theology</i>	47
	<i>Samuel Taylor Coleridge</i>	53
	<i>Interstellar Imperialism</i>	55

3	“In Yonder Hundred Million Spheres”: Thomas Chalmers and His Conversion to Pluralism	59
	<i>Chalmers’ Conversion Experience</i>	62
	<i>The Influence of Blaise Pascal</i>	66
	<i>Chalmers and the Age of the Earth</i>	68
	<i>Chalmers Addresses the ‘Astronomical Objection’</i>	71
	<i>Chalmers’ Theology and Political Economics</i>	76
	<i>Extraterrestrial Evangelism</i>	79
4	“What Is Man if Thou Art Mindful of Him?”: William Whewell and the Unique Revelation	83
	<i>William Whewell’s Declining Support for Pluralism</i>	85
	<i>Whewell’s Response to Vestiges of the Natural History of Creation</i>	89
	<i>Of the Plurality of Worlds: An Essay</i>	91
	<i>Cordelia Whewell’s Terminal Illness</i>	95
	<i>The Essay: Whewell’s Response to His Wife’s Illness and a Rebuttal of Chalmers</i>	98
	<i>Whewell and Politics</i>	103
	<i>Cosmology as Consolation</i>	105
5	Richard Proctor and Private Judgement	109
	<i>Proctor’s Conversion to Catholicism</i>	111
	<i>Proctor and Pluralism</i>	113
	<i>John Tyndall and the Belfast Address</i>	117
	<i>Proctor’s Response to Catholic Critics</i>	119
	<i>Heterodox Theological Views of Proctor and His Colleagues</i>	123
	<i>Universal Evolution</i>	127
Part III	The Nebular Hypothesis	131
6	John Pringle Nichol, the Nebular Hypothesis and Progressive Cosmogony	133
	<i>Origins of the Nebular Hypothesis</i>	136
	<i>John Pringle Nichol’s Early Career in Polemics</i>	140
	<i>Nichol’s Breakdown</i>	142
	<i>Professor of Astronomy at the University of Glasgow</i>	146

	<i>Nichol's Exposition of the Nebular Hypothesis</i>	148
	<i>Nichol's Political Views Post 1836</i>	150
	<i>Nichol and Continuous Creation</i>	151
	<i>Progressive Evolution</i>	154
7	“And Eddied into Suns, that Wheeling Cast/The Planets”: Rosse, Robinson and the Leviathan of Parsonstown	159
	<i>The Leviathan of Parsonstown</i>	161
	<i>Laurence Parsons and the Death of John Clere Parsons</i>	162
	<i>Political Upheavals and the Irish Famine</i>	165
	<i>Rosse, Robinson and Early Observations of the Nebulae</i>	167
	<i>Mechanical Objectivity and the Art of Drawing</i>	171
	<i>Artistic Responses to the Leviathan and the Orion Nebula</i>	175
	<i>Nichol's Initial Response to the ‘Resolvability’ of the Orion Nebula</i>	177
8	“In Tracts of Fluent Heat Began”: Nichol Defends and Develops Nebular Cosmogony	181
	<i>Nichol Reframes the Birr Castle Observations</i>	183
	<i>Nichol's Lecture Tours</i>	186
	<i>Reception of Nichol's Presentations</i>	189
	<i>John Herschel: Development of a Recognised Authority</i>	191
	<i>John Herschel and the Nebular Hypothesis</i>	195
	<i>The Emergence of Doubt</i>	197
	<i>The Stellar Universe</i>	201
	<i>Opiate Addiction</i>	203
	<i>Support from William Whewell and Herbert Spencer</i>	205
	<i>The Elusiveness of Objectivity in the Making of Cosmogonies</i>	209
Part IV	The Ages of the Earth and Sun	213
9	“And Murmurs from the Dying Sun”: William Thomson, Thermodynamics and Theology	215
	<i>The North British Physicists</i>	218
	<i>Scottish Education</i>	220
	<i>William Thomson's Upbringing and Early Career</i>	223

<i>Geological and Biological Time</i>	226
<i>Thomson's Intervention in Temporal Debates</i>	229
<i>The Law of Dissipation and Human Longevity</i>	234
<i>William Thomson, Consciousness and Atomic Theory</i>	238
<i>Chronology, Chloroform and Calvinism</i>	241
10 The North Britons: Physics and Metaphysics	245
<i>Fleeming Jenkin and the Chronology Debate</i>	248
<i>Peter Guthrie Tait's Support for William Thomson</i>	251
<i>James Clerk Maxwell and Free Will</i>	254
<i>Balfour Stewart and Joseph Norman Lockyer</i>	260
<i>Further Contributions from Jenkin and Maxwell</i>	264
<i>The Unseen Universe</i>	267
<i>The North British Group and the Immaterial Universe</i>	271
Bibliography	277
Index	299