

Contents

| | | |
|----------|---|----|
| 1 | Hegel, Bode's Law and the Missing Planet. | 1 |
| | The Great Masquerade of 1801. | 1 |
| | The Key to Knowledge | 3 |
| | The Law of the Spheres | 9 |
| | The Fulfillment of Bode's Law | 10 |
| | Hegel: The Dissertation | 12 |
| | <i>Plato and the Timaeus</i> | 13 |
| | Schelling: Nature Constructing Itself Before Our Eyes | 17 |
| | Ritter and the Planetary Distance Law | 20 |
| | An Intellectual Scandal of the First Degree | 23 |
| | Hegel's Rejoinder: The Sudden Wide Gap | 24 |
| | Ideas Sparkling Before the Imagination | 28 |
| | Goethe's Revenge | 31 |
| | The Revisionists | 33 |
| 2 | The Discovery of Juno | 37 |
| | An Extraordinary Phenomenon. | 37 |
| | An Accidental Discovery | 39 |
| | The Imperious Queen | 40 |
| | The Symbol for Juno. | 42 |
| | Physical Properties | 44 |
| | Orbital Properties | 46 |
| | Asteroid Orbits and Satellites | 47 |
| | The Color of Juno | 49 |
| | Herschel's Study of Juno | 50 |
| | How the Public Learned About Juno | 52 |
| 3 | Juno: A Driving Force for Change | 63 |
| | The Quintessence of the Matter | 63 |
| | Another Unpublished Work | 65 |
| | The Mass of Jupiter and the Nature of Gravity | 67 |

| | | |
|-----------|--|-----|
| 4 | The Music of the Spheres | 71 |
| | The Phantoms of Untold Mistakes | 71 |
| | Kepler's Celestial Harmony | 75 |
| | Gräter and the Human Mind | 79 |
| | Planetary Meteorology | 80 |
| | Astrology: Ceres Is Not a New Planet | 81 |
| | Schubert: Beyond the Horizon of Astronomy | 82 |
| | Extraterrestrial Life and the Asteroids | 86 |
| | Windischmann and Pantheistic Mysticism | 91 |
| 5 | The Big Four Asteroids in Verse | 93 |
| | The Early Poems: 1804–1819 | 93 |
| | The Middle Years: 1820–1840 | 102 |
| | The Later Poems: 1841–1885 | 112 |
| 6 | Letters: Bessel with Gauss and Olbers | 121 |
| 7 | The Olbers-Gauss Letters | 127 |
| 8 | The Harding-Gauss Letters | 155 |
| 9 | Letters: Gauss with Bode and Zach | 167 |
| 10 | The Oriani-Piazzi Letters | 173 |
| 11 | Schroeter's Asteroid Book | 177 |
| 12 | Scientific Papers on Juno | 199 |
| 13 | The Astronomical Instruments | 239 |
| | The Instrument Makers | 239 |
| | Overview of Instruments | 240 |
| 14 | The Observatories | 245 |
| | Altona (Germany) | 245 |
| | Berlin (Germany) | 246 |
| | Bogenhausen (Munich, Germany) | 246 |
| | Brera (Milan, Italy) | 248 |
| | Cracow (Poland) | 250 |
| | Goettingen (Germany) | 251 |
| | Greenwich (England) | 252 |
| | Groombridge's Observatory (England) | 253 |
| | Kremsmuenster (Austria) | 254 |
| | Lilienthal (Germany) | 256 |
| | Mannheim (Germany) | 257 |
| | Observatory House (England) | 259 |
| | Olbers' Observatory (Bremen) | 260 |
| | Padua (Italy) | 262 |
| | Palermo (Sicily) | 263 |

| | |
|---|------------|
| Paris (France) | 264 |
| Prague (Czech Republic) | 265 |
| Remplin (Germany) | 267 |
| Seeberg (Germany) | 268 |
| Vienna (Austria) | 269 |
| Vilnius (<i>Lithuania</i>) | 270 |
| Appendix 1: The 1802 Hungarian Letter of Antal Décsy | 273 |
| Appendix 2: Juno–The Ninth Planet | 279 |
| Appendix 3: The Historical Development of the Orbital Elements of Juno | 283 |
| References | 285 |
| Index | 299 |