Contents

Preface vi

Knell, S. J. & Lewis, C. L. E. Celebrating the age of the Earth 1

Fuller, J. G. C. M. Before the hills in order stood: the beginning of the geology of time in England 15

Vaccari, E. European views on terrestrial chronology from Descartes to the mid-eighteenth century 25

Taylor, K. L. Buffon, Desmarest and the ordering of geological events in époques 39

Rudwick, M. J. S. Jean-André de Luc and nature’s chronology 51

Torrens, H. S. Timeless order: William Smith (1769–1839) and the search for raw materials 1800–1820 61

Morrell, J. Genesis and geochronology: the case of John Phillips (1800–1874) 85

Shipley, B. C. ‘Had Lord Kelvin a right?’: John Perry, natural selection and the age of the Earth, 1894–1895 91

Wyse Jackson, P. N. John Joly (1857–1933) and his determinations of the age of the Earth 107

Lewis, C. L. E. Arthur Holmes’ vision of a geological timescale 121

Yochelson, E. L. & Lewis, C. L. E. The age of the Earth in the United States (1891–1931): from the geological viewpoint 139

Brush, S. G. Is the Earth too old? The impact of geochronology on cosmology, 1929–1952 157

Kamber, B. S., Moorbath, S. & Whitehouse, M. J. The oldest rocks on Earth: time constraints and geological controversies 177

Dalrymple, G. B. The age of the Earth in the twentieth century: a problem (mostly) solved 205

Hofmann, A. W. Lead isotopes and the age of the Earth – a geochemical accident 223

Callomon, J. H. Fossils as geological clocks 237

Manning, A. Time, life and the Earth 253

Stringer, C. B. Dating the origin of modern humans 265

Rees, M. J. Understanding the beginning and the end 275

Index 285