THE ENLIGHTENMENT SERIES

I am writing these inexpensive mini-monographs primarily to support the work of Derby Museum and Art Gallery and Erasmus Darwin House in Lichfield.

They are usually developed from talks I have given locally to commemorate Anniversaries of significant figures with connections to the area.

They all contain new and original material, and are intended to stimulate interest in both the lives and the ideas of the people who are discussed.

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HENRY CAVENDISH - THE MAN WHO 'WEIGHED' THE EARTH

His father abandoned a rising political career to carve out a niche for this autistic experimental genius by reforming the Royal Society. As well as measuring the Earth's Mean Density, he discovered Hydrogen and the composition of water. He was regarded as 'the greatest since Newton' despite publishing less than half of what he knew. He was buried in Derby Cathedral. This new edition has an appendix, explaining in pictures the continuing importance and extraordinary accuracy of his work.

BENJAMIN FRANKLIN AND DARWIN'S 'LUNATICKS'

Franklin was the most glamorous scientific figure of his age, becoming a friend and correspondent of the Lunar Society, whose members tended to share his political sympathies as well. This book charts his extraordinary life, gives an illustrated explanation of his contribution to the science of electricity, and contains a unique account of his travels, including visits to Derby and Lichfield. New edition describes his attempt with Darwin to isolate 'marsh gas'.
'EVOLUTION' EVOLVING:
PART I, ERASMUS DARWIN

Erasmus Darwin of Derby and Lichfield was a true Enlightenment polymath: Physician, Poet, Educator, Scientist, Inventor, and Social Reformer, whose gift for friendship nurtured the Lunar Society. He articulated the first comprehensive Evolutionary Theory of Life and the Universe, underpinned by a curious theory of reproduction. His evolutionary optimism was allied to political radicalism, and provoked hostility in the aftermath of the French Revolution. He had a narrow escape from prosecution with the Derby Society for Political Information's manifesto.

'EVOLUTION' EVOLVING:
PART II, HERBERT SPENCER

A generation after Erasmus Darwin, Herbert Spencer (whose father was Secretary of the Derby Philosophical Society) also produced a comprehensive Evolutionary Philosophy. This controversially applied evolutionary ideas to the development of human society. Though at one time 'Spencerism' rivalled Charles Darwin's account of evolution, later political associations led to its eclipse. This book traces Spencer's life and the development of his ideas from his early years as a Railway Engineer.

JOHN WHITEHURST'S THEORY OF THE EARTH

Known as a clock and instrument-maker, John Whitehurst became a pioneer of scientific stratigraphy due to his association with the mining industry. His Theory of the Earth shows his struggle to reconcile what he discovered with his conservative theology. This book reconstructs his developing ideas from an incomplete sketch among Franklin's papers, and compares successive printed editions. It also reveals he had a previously unappreciated influence on the geological work of James Hutton.

THE PHILOSOPHER LECTURING ON THE ORRERY

This book corrects some previous misinterpretations of what is being explained in the scene captured in Joseph Wright's famous painting. It establishes both the identity of the maker of the instrument and that of the 'Philosopher' whose career began in Derby but who has been largely forgotten. This is substantiated by portraits belonging to his living descendants. In addition to outlining his career for the first time, the book proposes identities for the other participants. The Philosopher later rescued the education of his daughter's teenage friend, Mary Wollstonecraft.

SEARCHING FOR THE PHILOSOPHER'S STONE

Joseph Wright's painting of an Alchemist's accidental discovery of Phosphorus imagines the real event in 1669. This book examines the source used by Wright's adviser, Dr Matthew Turner, to explain details of the picture which have previously been overlooked or misinterpreted. Appendices examine the Jungian interpretation of alchemy, Isaac Newton's secretive experiments and the role of alchemy in his thought, and the way in which modern astrophysics has established a kind of scientific alchemy.

EXPERIMENTISING THE BIRD IN THE AIR PUMP

This book discusses the symbolism of Joseph Wright's most disturbing painting, and traces in detail the role of such experiments in the development of 'public science' from the time of Robert Boyle onwards. As a result of 'following the money' a new candidate for populating the picture are unearthed. Examination of details in the final painting and Wright's earlier Sketch, lead to a specific hypothesis for the location of event and the identity of the lecturer and others. But due to his burning his papers, this remains unproven.